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BEST LINEAR UNBIASED ESTIMATION OF LOCATION AND SCALE PARAMETERS OF WEIBULL DISTRIBUTION USING ORDERED OBSERVATIONS

by
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Best linear unbiased estimation of the location and scale parameters of the Weibull distribution is considered. Best linear unbiased coefficients for the ordered observations in censored and uncensored sample are presented in Table 1. The expected values and variances of the Weibull order statistics are presented in Table 2. The product moments and the covariances of the Weibull order statistics are given in Table 3. The sample sizes considered are up to and including 12. Throughout, values of practical interest for the shape parameter of the Weibull distribution are considered.

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0. ABSTRACT

Best linear unbiased estimation of location and scale parameters of the Weibull distributions using ordered observations of a random sample is considered. It is assumed that the shape parameter of the Weibull distribution is known. For sample sizes up to and including five, all possible censoring is considered. For sample sizes greater than five, one-sided censoring (that is, large values of the sample are missing) is considered. The coefficients are presented in tabular form. For each sample size and the value of the shape parameter, the first row of coefficients in the table correspond to the best linear unbiased of the location parameter and the second row of coefficients correspond to the best estimation of the scale parameter. The accuracy of these coefficients is to four or more decimal places for sample sizes less than or equal to 5, to three or more decimal places for sample sizes 6 to 9 and to two or more decimal places for sample sizes 10 to 12. Weibull [8] has also computed these coefficients for sample sizes up to and including 15, using approximations for the variances and covariances of the Weibull order statistics. However, for sample sizes greater than 2, our values for the coefficients do not agree with his values. This is not surprising since the approximations for the variances and the covariances used by Weibull [8] are not very accurate.

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The expected values and the variances of the Weibull order statistics are computed accurate to four or five decimal places. These are presented in Table 2. In Table 2, for each combination of N and i the first row gives the expected values and the second row gives the variances. The product moments and the covariances are presented in Table 3. The accuracy is four to five decimal places except for sample sizes 11 and 12 where the accuracy is three decimal places. Again, for each combination of N, i and j, the first row gives the product moments and the second row gives the covariances. Each column of values in Tables 2 and 3 corresponds to a certain value of the shape parameter. Throughout, the same values of practical interest are considered for the shape parameter of the Weibull distribution.

1. INTRODUCTION

Many contributions have been made to the problem of linear unbiased estimation of the parameters of a distribution using the ordered observations of the sample. Lloyd [8] tackled this problem in general and gave explicit formulae for estimating the location and scale parameters of a distribution using order statistics in a random sample. Gupta [3] considered the problem of best linear estimation of the mean and standard deviation of a normal population using a censored sample. Sarhan [10, 11, 12] considered the problem of best linear estimation of the mean and standard deviation of a population by order statistics. Sarhan and Greenberg [13, 14] tackled the problem of estimating the location and scale parameters by order statistics in singly and doubly censored samples from normal and exponential populations. Tate [16] considered the best linear unbiased estimation of functions of location and scale parameters of a distribution. Plackett [9] gave some approximate expressions for the variance-covariance matrix of the censored sample and thus gave some 'almost' best linear estimates

of the parameters of a population. Blom [1] gave some approximations for the expected values, variances and covariances of order statistics in samples drawn from a continuous population such that the inverse of its cumulative distribution function could be expanded in Taylor series. Gupta [4] gave the moments of the order statistics in a random sample drawn from a gamma population with integral values for the shape parameter. He also considered the best linear estimation of the location and scale parameters of the gamma population. Weibull [17] gave a distribution which has been widely used in life testing problems. Lieblein [7] gave exact closed form expressions for the k^{th} moments and the product moments of the Weibull order statistics. Weibull [18] by applying the approximate formulae of Blom [1] for the variances and covariances of Weibull order statistics, computed the coefficients for the best linear estimation of the location and scale parameter of the Weibull distribution using the complete sample. However, the coefficients are in great error. Leone et al [6] considered method of moments and method of maximum likelihood for estimating the parameters of the Weibull. Dubey [2] considered approximations to the maximum likelihood estimators of the parameters of the Weibull distribution. White [19] recently showed that by considering the logarithms of the Weibull order statistics one can obtain best linear unbiased estimates of the scale and shape parameters of the Weibull distribution assuming that the location parameter is zero or known. Numerical values of the moments of Weibull order statistics have not been tabulated so far. Hence, it is of interest to numerically compute the lower moments of Weibull order statistics for small sample sizes at least and obtain accurate and best linear coefficients for the estimation of the location and scale parameters of the Weibull distribution.

3. NOTATION AND KNOWN RESULTS

In this section we will give the least square estimates of the location and scale parameters of an arbitrary continuous distribution as given by Lloyd [8]. However, we will consider general formulae that take care of any kind of censoring. We also give the exact formulae of Leiblein [7] for the moments of the Weibull order statistics.

Let X be a random variable with the density function $f((x-\theta)/\sigma)$ so that the transformed variable $Y = (X-\theta)/\sigma$ has density $f(y)$. That is, Y has 0 and 1 for its location and scale parameters respectively. Let

$$X_{r_1,N} \leq X_{r_1+1,N} \leq \cdots \leq X_{r_2,N}, \quad 1 \leq r_1 < r_2 \leq N, \tag{3.1}$$

be the available portion of the ordered sample of size N drawn from the population with density $f((x-\theta)/\sigma)$. That is, the first r_1-1 and the last $N-r_2$ observations are either missing or ignored. We wish to obtain the best linear unbiased estimates of θ and σ on the basis of this censored sample. Let

$$Y_{i,N} = (X_{i,N} - \theta)/\sigma, \qquad i = r_1, r_1 + 1, \ldots, r_2, \tag{3.2}$$

and

$$\mu_{i,N} = E(Y_{i,N}); \quad \sigma_{i,j,N} = \mathrm{Cov}(Y_{i,N}, Y_{j,N}), \; r_1 \leq i \leq j \leq r_2 . \tag{3.3}$$

We assume that $\mu_{i,N}$ and $\sigma_{i,j,N}$ are known. Then

$$E(X_{i,N}) = \theta + \sigma\, \mu_{i,N} \quad \text{and} \quad \mathrm{Cov}(X_{i,N}, X_{j,N}) = \sigma^2\, \sigma_{i,j,N} .$$

Since $E(X_{i,N})$ is linear in θ and σ, by Gauss-Markov theorem, θ and σ are estimable unbiasedly by linear combination of $X_{i,N}$. Let

$$X' = (X_{r_1,N}, \ldots, X_{r_2,N})', \qquad I = (1, \ldots, 1)'$$

$$\mu = (\mu_{r_1,N}, \ldots, \mu_{r_2,N})' \quad \text{and} \quad \Omega^{-1} = ((\sigma_{i,j,N})) \ .$$

Then, in matrix form, we have

$$\left.\begin{aligned} E(X) &= I\theta + \sigma\,\mu = ((I,\mu))\begin{pmatrix}\theta\\ \sigma\end{pmatrix} \\ \text{and} \qquad & \\ Var(X) &= \sigma^2\omega, \end{aligned}\right\} \tag{3.4}$$

where $\omega = \Omega^{-1}$ is an (r_2-r_1+1) x (r_2-r_1+1) positive definite symmetric matrix. Denoting $((I,\mu))$ by P and (θ,σ) by α', we have by Gauss-Markov theorem (See Lloyd [8]) the estimate of α;

$$\hat{\alpha} = (P'\Omega\, P)^{-1}\, P'\Omega\, X = bX \tag{3.5}$$

where b is a 2 x (r_2-r_1+1) matrix which will be called the coefficient matrix. Also, the variance-covariance matrix of the estimates is given by

$$(P'\Omega\, P)^{-1}\, \sigma^2 \ . \tag{3.6}$$

where

$$P'\Omega\, P = \begin{pmatrix} I'\Omega\, I & I'\Omega\,\mu \\ I'\Omega\,\mu & \mu'\Omega\,\mu \end{pmatrix}$$

the elements of the matrix being scalars. The inverse is given by

$$(P'\Omega\, P)^{-1} = \Delta^{-1}\begin{pmatrix} \mu'\Omega\,\mu & -I'\Omega\,\mu \\ -I'\Omega\,\mu & I'\Omega\, I \end{pmatrix}$$

where Δ is the determinant of the matrix $P'\Omega P$. Using this result in (3.5) and (3.6) we obtain,

$$\hat{\theta} = -\mu' DX, \quad \hat{\sigma} = I' DX \tag{3.7}$$

where D is the skew symmetric matrix defined by

$$D = \Omega(I\,\mu' - \mu I')\Omega/\Delta \tag{3.8}$$

Also

$$\left.\begin{aligned} Var(\hat{\theta}) &= \mu'\Omega\mu\sigma^2/\Delta, \qquad var(\hat{\sigma}) = I'\Omega I\sigma^2/\Delta \\ \text{and} \qquad & \\ Cov(\hat{\theta},\hat{\sigma}) &= -\, I'\Omega\mu\sigma^2/\Delta \end{aligned}\right\} \tag{3.9}$$

All the preceding formulae are explicitly given by Lloyd [8].

Next we consider the general Weibull distribution and assume that its shape parameter denoted by m is known. Consider the following distribution function for X.

$$F(x) = 1 - \exp(-\{(x-\theta)/\sigma\}^m), \qquad m \geq 1, \quad x > \theta .$$

Weibull [18] remarks that for $m < 1$, the Weibull distribution has no practical value since the derivative of its density function is infinitely large at $x = \theta$. Thus, throughout, we consider only values greater than unity for m. If $Y = (X-\theta)/\sigma$, then the distribution function of Y denoted by $G(y)$ is

$$G(y) = 1 - \exp(-y^m) \qquad y > 0 .$$

Let $Y_{1,N} \leq Y_{2,N} \leq \ldots \leq Y_{N,N}$ be the order statistics in a sample from $G(y)$. Lieblein [7] has given explicit formulae for the k^{th} moment of the $Y_{i,N}$ and the product moments of $Y_{i,N}$ and $Y_{j,N}$. Thus

$$E(Y_{i,N}^k) = N \binom{N-1}{i-1} \Gamma(1+km^{-1}) \sum_{\ell=0}^{i-1} (-1)^{\ell} \binom{i-1}{\ell} (N-i+\ell+1)^{-(1+km^{-1})} ,$$

$$1 \leq i \leq N, \quad k = 1, 2, \ldots \text{ and } m > 0, \quad (3.10)$$

and

$$E(Y_{i,N}\, Y_{j,N}) = K \sum_{\ell=0}^{i-1} \sum_{s=0}^{j-i-1} (-1)^{\ell+s} \binom{i-1}{\ell} \binom{j-i-1}{s} \psi(j-i+\ell-s, N-j+s+1),$$

$$1 \leq i < j \leq N, \qquad m > 0 \qquad (3.11)$$

where $K = N!\Gamma(2+2m^{-1})/(i-1)!(j-i-1)!(N-j)!$,

$$\psi(t,u) = (tu)^{1+m^{-1}} B_p(1+m^{-1}, 1+m^{-1}),$$

$p = t/(t+u)$ and $B_p(1+m^{-1}, 1+m^{-1}) = \int_0^p x^{\frac{1}{m}} (1-x)^{\frac{1}{m}} dx.$

(3.10) is slightly different from the expression due to Lieblein [7]. However, this can be obtained by expanding $G^{i-1}(y)$ in powers of $1-G(y)$ and integrating termwise. The covariance between $Y_{i,N}$ and $Y_{j,N}$ can be obtained by subtracting $E(Y_{i,N})E(Y_{j,N})$ from $E(Y_{i,N}\, Y_{j,N})$. However, when $m = 1$, the Weibull distribution becomes the negative exponential distribution in which case, it is known (see Sarhan [10]) that

$$\left.\begin{aligned} E(Y_{i,N}) &= \sum_{\ell=1}^{i} (N-\ell+1)^{-1} \\ \mathrm{Var}(Y_{i,N}) &= \sum_{\ell=1}^{i} (N-\ell+1)^{-2} \end{aligned}\right\} \qquad (3.12)$$

and

$$\mathrm{Cov}(Y_{i,N},\, Y_{j,N}) = \mathrm{Var}(Y_{i,N}) \,. \qquad i < j \,.$$

Equation (3.12) could be used for checking the accuracy of the moments of the Weibull order statistics. It is also well known that

$$\sum_{i=1}^{N} E(Y_{i,N}^{k}) = N\, E(Y^{k}) \,. \qquad (3.13)$$

Consequently

$$\sum_{i=1}^{N} E(Y_{i,N}) = N\, \Gamma(1/m)$$

and,

$$\sum_{i=1}^{N} E(Y_{i,N}^{2}) = N\, \Gamma(2/m)$$

which could be used for checking the accuracy of the numerical values of the moments of Weibull order statistics when $m \neq 1$.

4. TABLES PREPARED AND EXPLANATIONS

Table 1: The best linear coefficients for the ordered observations $X_{i,N}$ from the Weibull distribution given by

$$F(x) = 1 - \exp(-\{(x-\theta)/\sigma\}^m)$$

are presented in Table 1 for $m = 1.5(0.5)3(1)8$ and for sample sizes $N = 2(1)12$. For each combination of N and m the first row of coefficients corresponds to the estimation of θ and the second row corresponds to the estimation of σ. An easy check of these coefficients is that the coefficients for estimating θ add up to 1 and the coefficients for estimating σ add up to 0. The accuracy of the coefficients presented in Table 1 is as follows: For $N = 2(1)5$, all possible values for r_1 and r_2 are considered and the accuracy is four or more decimal places. For $N = 6(1)9$, $r_1 = 1$ and only one-sided fixed percentage truncation is considered. Here, the accuracy is 3 or more decimal places. For $N = 10(1)12$, $r_1 = 1$, and the accuracy is 2 or more decimal places.

Table 2: The expected values and the variances of the Weibull order statistics in samples of sizes up to and including 12 are presented in Table 2 for $m = 1(0.5)3(1)8$. For each combination of N,i and m, the first entry gives the expected value and the second entry gives the variance. The accuracy is to 5 decimal places for $N = 2(1)9$ and to 4 decimal places for $N = 10(1)12$. $\Gamma(1+km^{-1})$ was computed following a procedure suggested by Haynam and Hansen [5].

Table 3. The values of $E(Y_{i,N}\, Y_{j,N})$ and $Cov(Y_{i,N}, Y_{j,N})$ for sample sizes up to and including 12 and for $m = 1(0.5)3(1)8$ are presented in Table 3. Again, for each combination of N, i, j and m, the first entry gives $E(Y_{i,N}\, Y_{j,N})$ and the second entry gives $Cov(Y_{i,N}, Y_{j,N})$. The

accuracy is to 5 decimal places for $N = 2(1)9$, to 4 decimal places for $N = 10$ and to 3 decimal places for $N = 11$ and 12. The following representation was used in order to compute $B_p(w,w)$ occurring in (3.11):

$$B_p(w,w) = \sum_{s=0} (-1)^s \binom{w-1}{s} p^{w+s}/(w+s) \; ; \qquad (3.14)$$

the summation is finite if w is a positive integer. When w is not an integer terms which are of magnitude less or equal to 10^{-6} were neglected.

Throughout, the following rounding off procedure was adopted. If accuracy is desired to n decimal places, $5.10^{-(n+1)}$ was added to the computed value and n decimal places of the resultant value were retained for final presentation in Tables 1, 2 and 3.

5. COMPARISON WITH WEIBULL'S TABLES

Weibull [18] computed the expected values of the Weibull order statistics accurate to four decimal places using Leiblein's [7] formula, for $m = 1(1)10$. However, there is a marked disagreement among his coefficients and our coefficients given in Table 1, especially when N is greater than 2. To get an idea of the disagreement, we will present the values for $N = 5$, $m = 5$ in Table 5.1.

TABLE 5.1

Weibull:	for $\hat{\theta}$:	1.79	0.67	0.31	-0.12	-1.65
Our	for $\hat{\theta}$:	1.56930	1.15448	0.33735	-0.62650	-1.43460
Weibull:	for $\hat{\delta}$:	-1.69	-0.54	-0.15	0.33	2.05
Our	for $\hat{\delta}$:	-1.69774	-0.96413	-0.08339	1.07556	1.50294

The discrepancy is not surprising at all, since Weibull [18] used crude approximations of Blom [1] for the variances and covariances of the Weibull order statistics.

6. CONCLUSION

The best linear coefficients and the moments of Weibull order statistics presented in Tables 1, 2 and 3 will be useful in life testing problems. All the computations were done on Burroughs 220 compiler using single precision arithmetic. The computation of these tables were completed in about nine hours of machine time.

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COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4
2	1.5	1.85119	-.85118		
		-1.49675	1.49676		
	2.0	2.20711	-1.20710		
		-1.92625	1.92626		
	2.5	2.56489	-1.56488		
		-2.32724	2.32726		
	3.0	2.92367	-1.92367		
		-2.71413	2.71414		
	4.0	3.64264	-2.64263		
		-3.46716	3.46717		
	5.0	4.36240	-3.36239		
		-4.20662	4.20663		
	6.0	5.08289	-4.08288		
		-4.93997	4.93999		
	7.0	5.80353	-4.80352		
		-5.66956	5.66956		
	8.0	6.52445	-5.52444		
		-6.39714	6.39715		
3	1.5	2.07397	-1.07396		
		-2.47462	2.47464		
			2.40134	-1.40134	
			-1.67206	1.67207	
		.89697	.89831	-.79527	
		-.74285	-.42726	1.17013	
	2.0	2.68315	-1.68314		
		-2.89870	2.89871		
			2.97505	-1.97504	
			-2.30557	2.30558	
		1.23693	.75630	-.99122	
		-1.10182	-.32736	1.42920	
	2.5	2.89307	-1.89307		
		-3.31101	3.31103		
			3.55106	-2.55105	
			-2.91959	2.91961	
		1.54289	.64769	-1.19057	
		-1.44282	-.20451	1.64736	
	3.0	3.30341	-2.30340		
		-3.72021	3.72022		
			4.12813	-3.12813	
			-3.52282	3.52285	
		1.84390	.53818	-1.38207	
		-1.76449	-.08746	1.85197	
	4.0	4.12458	-3.12457		
		-4.53678	4.53679		
			1.00822	-.00821	
			-.89910	.89911	
		2.42671	.33684	-1.76354	
		-2.37071	.12085	2.24987	
	5.0	4.94606	-3.94607		
		-5.35386	5.35388		

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4
3	5.0		6.44092	-5.44096	
			-5.88952	5.88959	
		2.99766	.14573	-2.14339	
		-2.95819	.32277	2.63542	
	6.0	5.76793	-4.76794		
		-6.17208	6.17209		
			7.59846	-6.59847	
			-7.06080	7.06085	
		3.56290	-.04025	-2.52264	
		-3.53455	.51712	3.01744	
	7.0	6.58977	-5.58976		
		-6.99095	6.99098		
			8.75582	-7.75596	
			-8.22806	8.22818	
		4.12390	-.22151	-2.90238	
		-4.10327	.70439	3.39889	
	8.0	7.41124	-6.41126		
		-7.81001	7.81005		
			9.91423	-8.91424	
			-9.39388	9.39390	
		4.68184	-.39885	-3.28298	
		-4.66690	.88631	3.78061	
4	1.5	2.18249	-1.18249		
		-3.30074	3.30076		
			2.86909	-1.86909	
			-2.82676	2.82678	
				2.80737	-1.80737
				-1.78071	1.78072
		1.19408	.65240	-.84647	
		-1.37605	-.27225	1.64832	
			1.14940	.93392	-1.08331
			-.86032	-.37841	1.23876
		.35865	.83490	.66867	-.86201
		-.38518	-.52928	-.08235	.99684
	2.0	2.61600	-1.61600		
		-3.64694	3.64696		
			.00000	1.00000	
			1.39410	-1.39409	
				3.53732	-2.53732
				-2.54755	2.54757
		1.55536	.48828	-1.04363	
		-1.77549	-.06593	1.84145	
			1.57405	.86581	-1.41985
			-1.28694	-.34696	1.63392
		.69255	.88998	.34753	-.93005
		-.67443	-.61764	.13295	1.15914
	2.5	3.04996	-2.04995		
		-4.02268	4.02268		
			4.27986	-3.27988	
			-4.32594	4.32598	

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4
4	2.5			4.26951	-3.26955
				-3.30475	3.30478
		1.89479	.34754	-1.24231	
		-2.14413	.12386	2.02028	
			2.67220	.98537	-2.65755
			-2.50192	-.51328	3.01522
		.92775	1.20477	-.25417	-.87833
		-.94531	-.79972	.54993	1.19513
	3.0	3.48405	-3.48405		
		-4.41577	4.41579		
			4.98645	-3.98647	
			-5.05253	5.05257	
				5.00288	-4.00291
				-4.05595	4.05598
		2.22585	.21378	-1.43962	
		-2.48954	.28556	2.20399	
			2.39221	.69042	-2.08262
			-2.13083	-.21465	2.34550
		1.18802	.96341	.03324	-1.18466
		-1.21373	-.67364	.46133	1.42607
	4.0	4.35245	-4.35246		
		-5.23068	5.23070		
			6.40103	-5.40117	
			-6.49086	6.49100	
				6.47114	-5.47127
				-5.54787	5.54798
		2.97210	-.03532	-1.83676	
		-3.14939	.56699	2.58240	
			3.17842	.57609	-2.75450
			-2.93079	-.11208	3.04288
		1.68031	.99113	-.26590	-1.40553
		-1.70919	-.70635	.74523	1.67033
	5.0	5.22128	-5.22130		
		-6.06645	6.06648		
			7.81440	-6.81450	
			-7.91749	7.91760	
				7.94043	-6.94049
				-7.03205	7.03210
		3.50934	-.27498	-2.23436	
		-3.79382	.82769	2.96614	
			4.00856	.45670	-3.46525
			-3.76678	.00032	3.76648
		2.15227	1.00642	-.51821	-1.64046
		-2.19049	-.71522	.99335	1.91239
	6.0	6.09002	-6.09001		
		-6.91269	6.91269		
			8.22790	-8.22809	
			-8.33949	8.33960	
				8.41070	-8.41079
				-8.51249	8.51260

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4	5
4	6.0	4.14153	-.50864	-2.63287		
		-4.42999	1.07529	3.35471		
			4.73610	.35893	-4.09504	
			-4.50248	.09280	4.40971	
		2.61689	1.01457	-.75247	-1.87898	
		-2.66239	-.71657	1.22419	2.15480	
	7.0	6.95869	-6.95870			
		-7.76507	7.76511			
			10.64320	-9.64339		
			-10.76089	10.76090		
				11.85460	-10.85529	
				-10.97479	10.97530	
		4.77075	-.73833	-3.03240		
		-5.06149	1.21443	3.74708		
			5.50787	.26060	-4.76847	
			-5.27897	.18881	5.09017	
		3.07380	1.02775	-.98237	-2.11917	
		-3.12334	-.72678	1.45210	2.39804	
	8.0	7.82773	-6.82780			
		-8.62188	8.62194			
			12.05800	-11.05819		
			-12.17989	12.18010		
				12.34680	-11.34729	
				-11.46179	11.46230	
		5.39967	-.96927	-3.43039		
		-5.69220	1.55315	4.13906		
			6.27930	.16164	-5.44095	
			-6.05432	.28678	5.76756	
		3.52623	1.04386	-1.21078	-2.35929	
		-3.57869	-.74106	1.67953	2.64025	
5	1.5	2.24684	-1.24683			
		-4.03860	4.03860			
			3.12189	-2.12186		
			-3.81400	3.81400		
				3.50002	-2.50009	
				-3.05430	3.05437	
					3.12887	-2.12887
					-1.85777	1.85778
		1.34225	.51203	-.85427		
		-1.90269	-.11442	2.01713		
			1.61589	.59017	-1.20604	
			-1.61221	-.15103	1.76326	
				1.37111	.92383	-1.29493
				-.94732	-.33426	1.28160
		.63455	.88676	.28059	-.80188	
		-.74716	-.75857	.22230	1.28345	
			.49435	.93408	.59086	-1.01928
			-.48548	-.52813	.00884	1.00479
		-.29973	.40208	1.17414	1.16407	-1.44053
		-.13903	-.36847	-.42409	-.04837	.97999

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4	5
5	2.0	2.69437	-1.69436			
		-4.27816	4.27515			
			3.89507	-2.89508		
			-4.59360	4.59364		
				4.43660	-3.43679	
				-4.05299	4.05300	
					3.98035	-2.98036
					-2.72260	2.72263
		1.71145	.34471	-1.05615		
		-2.27950	.13519	2.14432		
			2.11108	.46291	-1.57399	
			-2.14451	-.01628	2.16081	
				2.09122	.48433	-1.57553
				-1.62733	-.00208	1.62942
		.94539	.91411	.04024	-.89972	
		-1.07644	-.78228	.46627	1.39247	
			.90933	1.07436	.12513	-1.10881
			-.80543	-.73587	.33148	1.20983
		.30158	.12641	1.25776	.71647	-1.40221
		-.43488	-.38284	-.45652	.16931	1.10497
	2.5	3.14211	-2.14209			
		-4.59599	4.59601			
			4.66860	-3.66863		
			-5.36621	5.36624		
				5.37590	-4.37569	
				-5.02959	5.02940	
					4.83388	-3.83393
					-3.58679	3.58683
		2.06414	.19461	-1.25874		
		-2.63627	.34789	2.28839		
			.18498	5.01553	-4.20050	
			.78894	-6.55537	5.76644	
				2.34401	.81772	-2.16172
				-1.91491	-.30582	2.22075
		1.21849	.92511	-.11071	-1.03287	
		-1.38469	-.75706	.63535	1.50641	
			1.18488	1.12138	.09047	-1.39672
			-1.12106	-.75736	.38096	1.49748
		.45286	.81393	.76716	.14892	-1.18285
		-.64596	-.65277	-.25745	.45171	1.10449
	3.0	3.59011	-2.59011			
		-4.95981	4.95982			
			5.44295	-4.44299		
			-6.13819	6.13810		
				6.31260	-5.31259	
				-5.99109	5.99090	
					.00000	1.00000
					.94905	-.94904
		2.40881	.05317	-1.46198		
		-2.97732	.52378	2.45356		

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4	5
5	3.0		3.10025	.18611	-2.28637	
			-3.17391	.28105	2.89288	
				2.82325	.76842	-2.59167
				-2.39304	-.27928	2.67235
		1.49189	.92145	-.25843	-1.15489	
		-1.67532	-.73001	.78581	1.61954	
			1.49983	1.19024	-.08679	-1.60326
			-1.42942	-.83615	.53486	1.73073
		.69525	.90903	.66194	-.04759	-1.21861
		-.87210	-.72977	-.17616	.59264	1.18541
	4.0	4.48600	-3.48602			
		-5.75107	5.75109			
			6.99100	-5.99149		
			-7.68069	7.68110		
				8.18950	-7.18949	
				-7.89879	7.89870	
					7.39970	-6.40119
					-6.17289	6.17350
		3.08590	-.21577	-1.87011		
		-3.64501	.83197	2.81305		
			4.05486	-.03519	-3.01968	
			-4.14704	.51300	3.63407	
				3.74965	.72005	-3.46971
				-3.32555	-.24831	3.57389
		2.01397	.92894	-.54563	-1.39727	
		-2.21179	-.71550	1.07650	1.85081	
			2.08921	1.35456	-.41383	-2.02992
			-2.01436	-1.01437	.84161	2.18715
		1.15790	1.04483	.47428	-.38187	-1.29512
		-1.29245	-.86318	-.04065	.85938	1.33693
	5.0	5.38215	-4.38215			
		-6.58503	6.58505			
			8.53950	-7.53999		
			-9.22479	9.22510		
				10.06710	-9.06709	
				-9.79459	9.79470	
					9.13100	-8.12899
					-7.90999	7.91000
		4.08670	-1.27175	-1.81493		
		-4.72368	2.11588	2.60780		
			5.00615	-.25394	-3.75220	
			-5.10827	.73699	4.37130	
				4.67158	.67661	-4.34821
				-4.25005	-.21826	4.46835
		2.52518	.92419	-.80033	-1.64903	
		-2.73383	-.69023	1.33102	2.09306	
			2.67236	1.49899	-.70635	-2.46499
			-2.59632	-1.16583	1.12193	2.64023
		1.56930	1.15448	.33735	-.62650	-1.43460
		-1.69774	-.96413	.08339	1.07556	1.50294

TABLE 1

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4	5
5	6.0	6.27825	-5.27824			
		-7.43990	7.43993			
			10.09110	-9.09189		
			-10.77339	10.77380		
				11.94400	-10.94429	
				-11.68389	11.68390	
					10.83300	-9.83129
					-9.61849	9.61680
		4.42140	-.73287	-2.68853		
		-4.96706	1.38662	3.58046		
			5.95437	-.46845	-4.48590	
			-6.06290	.95504	5.10787	
				5.58040	.65499	-5.23543
				-5.16113	-.20502	5.36621
		3.02956	.91986	-1.04659	-1.90281	
		-3.24492	-.67149	1.57637	2.34007	
			3.24807	1.64632	-.99280	-2.90157
			-3.17047	-1.31886	1.39944	3.08991
		1.96942	1.24614	.21571	-.84146	-1.58980
		-2.09690	-1.04695	.19748	1.27259	1.67381
	7.0	.00000	1.00000			
		1.34535	-1.34534			
			11.63400	-10.63429		
			-12.31199	12.31300		
				13.82000	-12.82099	
				-13.56929	13.56930	
					12.55390	-11.55339
					-11.34299	11.34230
		5.08541	-.98703	-3.09837		
		-5.62643	1.65100	3.97544		
			6.89875	-.67660	-5.22206	
			-7.01198	1.16633	5.84565	
				6.48912	.63211	-6.12126
				-6.07235	-.18669	6.25910
		3.52844	.92062	-1.29212	-2.15692	
		-3.74789	-.66284	1.82180	2.58895	
			3.81436	1.80229	-1.27437	-3.34226
			-3.73730	-1.47806	1.67735	3.53803
		2.36026	1.33748	.10181	-1.05188	-1.74765
		-2.48477	-1.13541	.30479	1.47216	1.84324
	8.0	8.07044	-7.07046			
		-9.18096	9.18098			
			13.17500	-12.17799		
			-13.85099	13.85400		
				15.70110	-14.70089	
				-15.45599	15.45570	
					14.25900	-13.25799
					-13.05199	13.05000
		5.74721	-1.23840	-3.50880		
		-6.28435	1.90958	4.37479		

COEFFICIENTS OF BEST LINEAR ESTIMATES

N	M	1	2	3	4	5
5	8.0		7.84328	-.88577	-5.95754	
			-7.96016	1.37818	6.58203	
				7.31110	.77024	-7.08136
				-6.89624	-.32831	7.22459
		4.02360	.92382	-1.53515	-2.41276	
		-4.24573	-.65935	2.06482	2.84028	
			4.37813	1.95772	-1.55025	-3.78558
			-4.30222	-1.63531	1.95131	3.98625
		2.74401	1.42992	-.00750	-1.25675	-1.90966
		-2.86584	-1.22707	.40926	1.67036	2.01330

N	M	1	2	3	4	5	6	7
6	1.5	.4471	.6367	1.3354	-1.3185	-.1004		
		-.5774	-.5936	-1.0065	1.8424	.3354		
		.0768	.3005	.2263	1.3583	-.1985	-.7632	
		-1.1348	-.8940	-.2392	1.6398	1.4209	-.7924	
	2.0	.5056	.7641	1.7822	-1.9460	-.1056		
		-.6167	-.7112	-1.6081	2.6324	.3039		
		.7176	.6531	-.1385	.9975	-1.1484	-.0812	
		-.9818	-.6976	.2045	.1940	1.5217	-.2405	
	2.5	.6711	.9179	1.8028	-2.2510	-.1405		
		-.8111	-.8502	-1.6270	2.9917	.2968		
		1.5219	.8577	-.7993	.6814	-2.0615	.7999	
		-1.8360	-.8755	.8961	.6056	2.3608	-1.1508	
	3.0	.7955	1.0386	2.0323	-2.7152	-.1509		
		-.9334	-.9610	-1.9074	3.5157	.2864		
		2.4456	.8911	-2.1915	1.3892	-3.2388	1.7046	
		-2.7478	-.8654	2.3366	-.2418	3.5342	-2.0153	
	4.0	.7371	1.4525	3.1281	-4.0502	-.2673		
		-.8066	-1.4063	-3.1904	5.0079	.3957		
		12.8582	-.3469	-21.4042	13.4379	-17.1446	13.5999	
		-13.5586	.4525	22.4750	-13.1168	18.1366	-14.3883	
	5.0	.6120	1.9198	4.5694	-5.8457	-.2552		
		-.6221	-1.9047	-4.8140	6.9762	.3648		
		-30.7872	8.0810	64.6581	-42.9066	37.7266	-35.7712	
		32.6943	-8.4642	-68.6567	46.4614	-39.9342	37.8994	
	6.0	.2498	2.5146	7.0026	-8.8088	.0420		
		-.1828	-2.5415	-7.5153	10.2210	.0188		
		-26.0295	9.1330	59.1464	-42.1348	29.3703	-28.4843	
		27.9734	-9.6486	-63.4467	46.0463	-31.3994	30.4745	
	7.0	-.6205	3.5144	10.5819	-12.7488	.2733		
		.8103	-3.6257	-11.4442	14.5044	-.2446		
		-28.2898	11.7372	64.9639	-46.5141	28.2069	-29.1036	
		30.5540	-12.4747	-69.9383	50.8669	-30.2663	31.2583	
	8.0	-2.1701	5.0585	15.8586	-18.2831	.5367		
		2.5331	-5.2980	-17.1873	20.4895	-.5375		
		-26.7450	12.3378	60.9974	-41.9505	23.9765	-27.6152	
		28.8865	-13.0981	-65.5735	45.8333	-25.6788	29.6304	
7	1.5	.4618	.6586	.0097	1.4244	-1.7303	.1760	
		-.5986	-.6623	.0795	-.7242	1.9144	-.0085	
		-.0209	.1255	.5353	.2931	1.1237	-.3306	-.7258
		.8364	.6305	-.4001	-.5401	-2.5872	-.1659	2.2267
	2.0	1.0909	.9546	-1.2588	2.8102	-3.8509	1.2541	
		-1.2277	-.9553	1.4112	-2.3153	4.2233	-1.1358	
		-1.6769	-.8418	1.2578	1.3165	4.2099	.3937	-3.6589
		8.0684	5.0303	-2.8363	-5.2743	-15.4913	-4.0083	14.5119
	2.5	2.2281	1.1607	-3.4645	4.5322	-6.4672	3.0109	
		-2.4499	-1.1603	3.7687	-4.1282	6.9922	-3.0221	
		-1.5776	-.3650	1.6302	1.5584	3.2553	-.0809	-3.4202
		5.9018	2.4411	-3.2513	-4.7048	-9.1162	-1.4786	10.2084
	3.0	5.5402	1.5259	-11.5092	11.6786	-15.0358	8.8004	
		-5.9979	-1.5352	12.4055	-11.8304	16.2075	-9.2490	

N	M	1	2	3	4	5	6	7	8
		6.1607	2.6155	-1.8294	-4.6384	-6.4421	-2.7984	7.9325	
		-16.0363	-5.9631	6.7777	12.8787	18.5489	6.1746	-22.3803	
7	4.0	-7.1668	1.5113	20.5516	-16.4024	16.9660	-14.4589		
		7.7277	-1.5174	-22.1123	18.3169	-18.1892	15.7742		
		1.7949	1.1463	.6009	-1.1960	-.9320	-1.6411	1.2273	
		-3.2441	-1.4436	.2788	2.7073	2.6782	2.3245	-3.3008	
	5.0	-5.2804	2.1755	16.5393	-12.2071	10.7829	-11.0098		
		5.7456	-2.2212	-17.8402	13.7934	-11.5569	12.0792		
		1.7893	1.2229	.9091	-1.2345	-.7310	-1.8179	.8623	
		-2.7022	-1.3171	-.2973	2.3095	1.8070	2.3131	-2.1126	
	6.0	-6.2867	3.0159	19.5787	-14.1466	11.2911	-12.4518		
		6.8681	-3.1150	-21.1426	15.8721	-12.1209	13.6382		
		1.9946	1.3535	1.1146	-1.4685	-.7153	-2.0844	.8057	
		-2.7096	-1.3683	-.6082	2.3755	1.5394	2.5157	-1.7442	
	7.0	-8.6601	4.6090	25.3991	-18.1258	12.7802	-15.0018		
		9.4588	-4.8291	-27.4224	20.1414	-13.7180	16.3693		
		2.1238	1.5386	1.3658	-1.6434	-.7414	-2.3362	.6930	
		-2.7173	-1.5273	-.9358	2.4617	1.4405	2.7447	-1.4661	
	8.0	-10.6194	5.9772	29.9103	-20.5641	13.7256	-17.4288		
		11.5644	-6.2857	-32.2013	22.6858	-14.6936	18.9299		
		2.3300	1.7468	1.6877	-2.0193	-.8141	-2.7462	.8154	
		-2.8469	-1.7254	-1.3254	2.8080	1.4349	3.1561	-1.5009	
8	1.5	.2799	.4144	.7189	.0252	.7377	-1.2038	.0278	
		-.5097	-.5479	-.5045	.2267	.1162	1.2900	-.0703	
		-.1779	-.0920	-.1691	.8921	.1715	2.1232	-.6677	-1.0795
		.5689	.5210	.5771	-1.0314	-.2184	-3.0794	.6997	1.9628
	2.0	.3107	.4912	.9569	-.1079	.8478	-1.4091	-.0893	
		-.5395	-.5812	-.7505	.4074	-.2023	1.6661	.0004	
		1.4422	1.3916	1.4590	-1.2133	-.2196	-3.9713	.0873	2.0244
		-1.5061	-1.4402	-1.6955	1.7764	.1454	5.2132	-.3972	-2.0955
	2.5	.4114	.6167	1.0323	-.0642	.5306	-1.2943	-.2321	
		-.7127	-.6941	-.7786	.4654	.0777	1.5787	.0639	
		1.2617	1.1076	.9887	-.7649	-.4411	-2.2606	-.0878	1.1969
		-1.0847	-.9851	-1.0729	.9972	.3325	2.6830	-.0749	-.7947
	3.0	.5249	.7255	1.1283	-.1348	.4066	-1.3308	-.3194	
		-.8309	-.7717	-.8704	.5572	.1277	1.6322	.1561	
		1.4257	1.1154	.8597	-.7901	-.5831	-1.9611	-.2097	1.1435
		-1.1095	-.9416	-.9723	.8991	.3657	2.1869	.0978	-.5258
	4.0	.6999	.9354	1.4391	-.3148	.2751	-1.6472	-.3872	
		-.9583	-.9522	-1.2361	.7386	.1610	1.9846	.2626	
		2.0494	1.3726	.8170	-1.2029	-1.1291	-2.3164	-.3551	1.7649
		-1.3979	-1.1060	-1.0736	1.0599	.6127	2.2711	.2471	-.6130
	5.0	.9166	1.1402	1.6984	-.5519	.1786	-1.9663	-.4152	
		-1.1573	-1.1389	-1.5197	.9825	.2071	2.3166	.3099	
		3.3957	1.7710	.4212	-2.1492	-2.2327	-3.1108	-.4736	3.3788
		-2.0007	-1.3428	-1.0482	1.4940	1.0309	2.6467	.3351	-1.1146
	6.0	1.1668	1.3307	1.9315	-.8443	.1489	-2.3543	-.3790	
		-1.3986	-1.3156	-1.7677	1.2824	.1965	2.7199	.2833	
		9.5487	3.0833	-2.4080	-6.4245	-7.4757	-6.4353	-.8669	11.9788
		-4.1424	-1.8627	-.2544	3.0232	2.7034	3.9075	.4621	-3.8362

TABLE 1

N	M	1	2	3	4	5	6	7	8	9
8	7.0	1.2991	1.5468	2.0957	-.8734	.1054	-2.5071	-.6663		
		-1.5108	-1.5300	-1.9423	1.2940	.2187	2.8736	.5970		
		-5.1293	.2912	5.0920	3.8381	5.6585	1.3291	-.2503	-9.8290	
		.5264	-1.1036	-2.8134	-.2714	-1.5383	1.5297	.4684	3.2026	
	8.0	1.4425	1.7663	2.3813	-1.0463	.0805	-2.8474	-.7767		
		-1.6395	-1.7508	-2.2446	1.4680	.2287	3.2207	.7178		
		-2.1187	1.0159	3.8463	1.7124	3.3186	-.4175	-.4460	-5.9107	
		.1091	-1.3286	-2.8227	-.0253	-1.3504	1.7938	.5595	3.0650	
9	1.5	.4657	.5601	.3101	.4855	-.3416	.2922	-1.2457	.4738	
		-.5878	-.6341	-.4501	.0075	.3591	.8641	.7358	-.2942	
		.0625	.1390	.3113	.1871	.5395	.0615	.6640	-.5453	-.4194
		.1229	.0885	-.1203	-.0489	-.5364	-.1035	-.8652	.5591	.9043
	2.0	1.0771	.9228	-.0117	.5724	-1.3687	.5095	-2.2519	1.5507	
		-1.0259	-.8807	-.1978	-.1048	1.1126	.4655	1.6837	-1.0521	
		.1435	.2623	.4872	.1925	.6037	-.1185	.5131	-.6991	-.3843
		.1232	.0002	-.3327	-.1054	-.7169	.0210	-.7877	.7847	1.0141
	2.5	2.3555	1.4494	-.7844	.1818	-2.7219	-.0429	-2.9130	3.4760	
		-1.9507	-1.2564	.3181	.2149	2.0919	.7881	2.0959	-2.3014	
		.2409	.3822	.6138	.2259	.5166	-.1303	.2548	-.7454	-.3583
		.0906	-.1165	-.5186	-.2031	-.6942	-.0088	-.4937	.9015	1.0434
	3.0	27.1537	9.9659	-23.3918	-1.2191	-36.7092	6.6197	-28.6848	47.2659	
		-19.6026	-7.3181	16.3448	1.2468	26.2326	-3.9372	20.4253	-33.3911	
		.3120	.4676	.7185	.2409	.5015	-.2014	.1492	-.7593	-.4287
		.1077	-.1877	-.6779	-.2858	-.7540	.0140	-.3924	.9556	1.2210
	4.0	-1.5016	.2175	3.2252	.1077	3.0955	-1.1025	1.7080	-4.7495	
		.8516	-.3868	-2.7315	.2883	-2.1944	1.5127	-1.2407	3.9011	
		.3766	.6004	1.0063	.1952	.6438	-.3397	.1320	-1.1008	-.5134
		.1891	-.2950	-1.0594	-.3298	-1.0382	.0622	-.4200	1.3883	1.5032
	5.0	-.6238	.7198	2.8022	-.0691	2.0749	-1.2184	.9328	-3.6180	
		.1957	-.7953	-2.4982	.4479	-1.4831	1.6127	-.6784	3.1991	
		.3828	.7260	1.2640	.2043	.8014	-.4133	.1517	-1.3724	-.7442
		.4013	-.3835	-1.4273	-.4746	-1.3820	.0076	-.5164	1.7558	2.0196
	6.0	-.2648	.9748	2.9154	-.2381	1.7784	-1.4946	.8799	-3.5506	
		-.1009	-1.0148	-2.6645	.6215	-1.2908	1.8674	-.6805	3.2631	
		.3442	.8260	1.5384	.2548	.9627	-.4547	.2679	-1.6567	-1.0823
		.6840	-.4571	-1.8329	-.6771	-1.7362	-.0550	-.7345	2.1499	2.6597
	7.0	.1776	1.3110	3.0552	-.2544	1.0751	-1.9390	.2217	-2.6469	
		-.4884	-1.3373	-2.8633	.6560	-.6784	2.3155	-.0434	2.4399	
		.2811	.9253	1.7217	.5582	.8897	-.3430	.1308	-1.4757	-1.6878
		1.1571	-.4702	-2.1660	-1.2866	-1.9752	-.3938	-.7910	2.0384	3.8879
	8.0	.3598	1.6870	3.1329	-.3194	.8608	-1.9895	-.2965	-2.4348	
		-.6425	-1.7095	-2.9687	.7174	-.4865	2.3653	.4611	2.2638	
		-1.2360	.7763	2.5249	1.5872	2.2044	.5790	.6013	-2.1645	-3.8723
		3.4151	-.1813	-3.2524	-2.8362	-3.7816	-1.9824	-1.3838	2.9286	7.0745

TABLE 1

N	M	1	2	3	4	5	6	7	8	9	10	11
10	1.5	.215	.317	.476	.203	.503	-.219	.377	-.971	.101		
		-1.474	-1.534	-.586	-.358	1.894	1.014	3.893	-1.046	-1.797		
		-.283	-.307	-.463	.378	-.137	1.589	.134	2.723	-1.244	-1.385	
		.456	.531	.710	-.260	.273	-1.723	-.156	-3.088	1.369	1.893	
	2.0	-.416	-.173	.653	.294	1.517	.077	1.838	-1.527	-1.258		
		-1.491	-1.328	-.442	.011	1.382	1.193	2.456	.108	-1.885		
		.717	.822	1.040	.121	.434	-1.270	-.073	-2.190	.365	1.038	
		-.629	-.723	-1.001	.005	-.425	1.479	.027	2.479	-.422	-.784	
	2.5	-.703	-.134	1.007	.414	2.010	.327	1.473	-1.956	-1.433		
		-2.386	-1.672	-.150	.479	2.256	1.870	2.617	-.425	-2.584		
		.683	.745	.840	.018	.354	-.791	-.251	-1.349	.286	.467	
		-.539	-.617	-.793	.099	-.389	.898	.212	1.529	-.302	-.092	
	3.0	-.935	-.125	1.336	.575	2.148	.519	1.452	-1.897	-2.069		
		-1.652	-1.139	-.361	.401	1.041	1.301	1.283	.466	-1.336		
		.778	.770	.850	-.005	.213	-.667	-.266	-1.135	.028	.437	
		-.591	-.625	-.821	.097	-.268	.719	.197	1.284	.028	-.015	
	4.0	.557	.758	1.255	-.180	.960	-.882	.088	-1.848	.295		
		-1.382	-1.049	-.817	.609	.065	1.554	.688	1.363	-1.026		
		.948	.895	.993	-.233	.431	-.972	-.256	-1.391	.497	.091	
		-.694	-.733	-.996	.317	-.586	1.015	.129	1.558	-.490	.486	
	5.0	.968	.998	1.384	-.487	.982	-1.354	-.032	-2.265	.810		
		-1.602	-1.173	-1.038	.911	-.227	1.918	.539	1.987	-1.310		
		1.170	1.020	1.099	-.389	.531	-1.165	-.232	-1.694	.724	-.061	
		-.845	-.842	-1.134	.442	-.775	1.177	.059	1.884	-.714	.752	
	6.0	1.166	1.221	1.450	-.651	1.091	-1.504	-.022	-2.588	.841		
		-1.731	-1.343	-1.139	1.080	-.453	2.020	.394	2.475	-1.299		
		1.357	1.209	1.187	-.542	.663	-1.321	-.181	-2.053	.757	-.071	
		-.943	-1.025	-1.259	.551	-.986	1.276	-.009	2.247	-.705	.859	
	7.0	1.054	1.226	1.773	-.466	.835	-.800	-.107	-2.408	-.101		
		-1.579	-1.323	-1.505	.889	-.224	1.249	.469	2.432	-.403		
		1.498	1.329	1.509	-.588	.388	-1.031	-.324	-2.212	.194	.241	
		-.998	-1.128	-1.645	.561	-.712	.831	.158	2.331	.010	.598	
	8.0	1.031	1.609	1.273	.221	.754	-.544	-.915	-1.307	-1.119		
		-1.563	-1.698	-1.009	.232	-.143	1.001	1.225	1.384	.575		
		1.893	1.695	.908	-.185	-.087	-.899	-1.238	-1.086	-.325	.329	
		-1.396	-1.526	-.961	.067	-.221	.750	1.038	1.138	.592	.524	
11	1.5	.430	.539	.532	.283	.189	-.289	-.257	-.737	-.124	.438	
		-.478	-.584	-.639	-.071	-.266	.909	.158	1.674	-.528	-.168	
		.063	.120	.217	.151	.354	.112	.435	-.046	.462	-.552	-.312
		.041	.021	-.069	-.019	-.255	-.049	-.430	.030	-.518	.598	.656
	2.0	.629	.678	.605	.218	.090	-.418	-.428	-.777	-.296	.704	
		-.568	-.614	-.808	.003	-.115	.698	.280	1.540	.061	-.470	
		.136	.209	.429	.190	.326	.170	.375	-.281	.210	-.457	-.305
		.009	-.044	-.299	-.076	-.266	-.160	-.425	.261	-.280	.563	.724
	2.5	.856	.797	.575	.176	-.146	-.473	-.621	-.669	-.146	.656	
		-.663	-.655	-.600	-.053	-.100	.752	.391	.959	-.115	.090	
		.247	.346	.479	.240	.537	-.136	.309	-.308	.188	-.811	-.084
		-.063	-.172	-.364	-.150	-.562	.160	-.407	.293	-.263	1.017	.518
	3.0	1.135	.935	.593	.010	-.195	-.776	-.649	-.879	-.006	.837	
		-.857	-.775	-.762	.238	-.296	1.031	.437	1.384	-.381	-.013	

N	M	1	2	3	4	5	6	7	8	9	10	11	12
		.327	.425	.618	.118	.643	-.129	.172	-.534	.266	-.692	-.210	
		-.107	-.245	-.538	-.031	-.720	.119	-.267	.537	-.344	.916	.687	
11	4.0	1.790	1.245	.503	-.040	-1.112	-.475	-1.643	-.659	-.108	1.506		
		-1.364	-1.018	-.606	.208	.380	.842	1.058	1.018	-.401	-.111		
		.475	.603	.835	-.028	1.249	-.924	.656	-1.088	.876	-2.100	.451	
		-.219	-.428	-.796	.116	-1.468	1.017	-.859	1.161	-1.040	2.565	-.042	
	5.0	2.746	1.618	.264	-.193	-2.236	-.413	-2.687	-.605	-.230	2.741		
		-2.075	-1.307	-.497	.296	1.128	.894	1.801	1.029	-.468	-.796		
		.592	.715	1.073	-.059	1.571	-1.402	.775	-1.443	1.368	-2.844	.658	
		-.295	-.538	-1.077	.128	-1.857	1.522	-1.008	1.537	-1.579	3.420	-.246	
	6.0	7.820	2.840	-.116	-3.935	-8.161	.661	-7.670	1.349	-3.624	11.839		
		-5.750	-2.313	-.155	2.743	5.401	.377	5.325	-.326	2.280	-7.577		
		.851	1.004	.742	.528	.979	-1.393	.453	-1.088	.382	-1.534	.079	
		-.486	-.829	-.700	-.602	-1.244	1.460	-.699	1.161	-.545	1.984	.506	
	7.0	11.344	3.830	-2.322	-1.603	-14.861	-2.218	-6.131	-1.089	-4.647	18.705		
		-8.352	-3.056	1.319	1.249	10.183	2.289	4.504	1.320	2.969	-12.421		
		.923	1.079	1.105	.009	1.522	-1.132	-.250	-.759	.452	-2.040	.094	
		-.563	-.915	-1.104	-.012	-1.813	1.139	.093	.799	-.623	2.527	.478	
	8.0	5.878	2.609	.074	-2.579	-4.415	-3.310	-1.981	-1.655	.123	6.262		
		-3.723	-1.933	-.383	.380	2.715	2.688	1.648	.410	.972	-2.770		
		.670	.947	.916	2.062	.475	-.883	-.398	.614	-1.387	-1.857	-.153	
		-.302	-.778	-.882	-2.289	-.615	.812	.393	-.818	1.549	2.257	.679	
12	1.5	.127	.165	.361	.217	.411	.050	.506	-.375	.396	-.916	.061	
		.211	.282	-.170	.027	-.593	-.055	-1.324	.466	-1.410	1.892	.678	
		-.293	-.263	-.604	-.011	-.327	.896	-.157	2.093	.080	2.737	-1.599	-1.544
		.390	.394	.761	.139	.453	-.845	.222	-2.156	-.083	-2.851	1.689	1.891
	2.0	.373	.487	.456	.162	.317	.129	-.300	-.288	-.109	-.331	.109	
		-.114	-.278	-.312	.121	-.570	-.234	.166	.201	-.317	.591	.754	
		.425	.699	.687	-.136	.821	.292	-.686	-.642	.181	-1.056	-.644	1.065
		-.341	-.616	-.605	.283	-.805	-.259	.785	.710	-.227	1.159	.765	-.842
	2.5	.422	.474	.689	.298	.426	-.583	.787	-.988	.038	-1.355	.794	
		.015	-.113	-.792	-.264	-.830	.855	-1.996	1.451	-.522	2.889	-.686	
		.505	.544	.728	.297	.392	-.693	.724	-1.114	-.035	-1.354	.963	.047
		-.401	-.433	-.667	-.212	-.367	.837	-.837	1.254	.008	1.549	-1.028	.303
	3.0	.700	.679	.593	.125	.431	-.585	-.143	-.461	.042	-.866	.489	
		-.358	-.447	-.594	-.000	-.902	.892	-.389	.497	-.544	1.798	.054	
		.575	.634	.705	.074	.855	-.878	.239	-.550	.417	-1.671	.155	.449
		-.447	-.523	-.649	.030	-.934	1.052	-.312	.604	-.540	1.961	-.081	-.154
	4.0	2.130	1.250	.133	.062	-2.471	1.177	-2.651	-.292	-1.933	5.327	-1.727	
		-2.619	-1.305	.285	-.002	4.373	-3.207	5.088	-.852	3.537	-9.696	4.403	
		.618	.691	.679	.149	1.135	-1.984	1.694	-1.646	1.003	-2.766	2.568	-1.137
		-.445	-.566	-.614	-.077	-1.282	2.284	-2.007	1.857	-1.218	3.210	-2.841	1.707
	5.0	1.975	1.400	.872	-.416	.383	-3.294	1.625	-3.050	.675	-1.946	2.780	
		-2.030	-1.382	-.590	.360	.444	2.178	-.347	2.312	.251	-.172	-1.019	
		.935	.785	.971	-.208	1.559	-3.198	2.739	-2.456	1.755	-4.400	4.147	-1.625
		-.719	-.623	-.936	.293	-1.837	3.667	-3.281	2.796	-2.165	5.124	-4.745	2.433
	6.0	1.447	.944	.574	1.552	-1.847	-.482	.851	-1.773	.147	-.216	-.191	
		-1.005	-.700	-.687	-1.776	1.794	.490	-1.562	1.932	-.096	.368	1.249	
		1.047	.770	.938	2.315	-2.137	-.618	2.308	-2.463	.092	-.534	-2.095	1.382
		-.872	-.642	-.926	-2.502	2.426	.623	-2.615	2.671	-.089	.598	2.492	-1.157
	7.0	3.642	1.484	-.015	-1.445	.720	-3.247	-2.047	-.725	-.053	2.303	.389	
		-3.960	-1.360	.260	1.992	-.389	2.289	3.603	.306	-.067	-3.932	1.265	
		1.074	1.155	.698	.798	1.213	-4.052	3.075	-1.490	-.313	-3.242	4.644	-2.555
		-.873	-1.062	-.665	-.804	-1.309	4.406	-3.420	1.559	.388	3.471	-4.890	3.207
	8.0	4.315	2.020	-1.603	-1.015	1.917	-7.012	-3.249	.864	2.526	6.309	-4.067	
		-4.595	-2.070	3.390	.876	-3.184	7.722	5.100	-1.039	-5.252	-9.463	8.520	
		1.610	1.042	-3.046	-.511	-1.795	-1.311	2.253	.100	-4.671	-3.508	7.277	-2.527
		-1.414	-.907	-3.197	.604	1.923	1.293	-2.511	-.039	4.882	3.959	-7.772	3.186

TABLE 1

EXPECTED VALUES AND VARIANCES OF ORDER STATISTICS FROM WEIBULL DISTRIBUTION

VALUES OF M

N	I	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
2	1	.50000	.56869	.62666	.67242	.70876	.76219	.79931	.82650	.84725	.86358
		.25000	.14909	.10730	.08279	.06636	.04572	.03352	.02565	.02027	.01642
2	2	1.50000	1.23680	1.14580	1.10211	1.07720	1.05061	1.03703	1.02893	1.02363	1.01990
		1.25000	.37911	.18715	.11319	.07644	.04201	.02669	.01849	.01359	.01041
3	1	.33333	.43399	.51166	.57175	.61916	.68872	.73705	.77250	.79957	.82090
		.11111	.08683	.07153	.05986	.05064	.03733	.02850	.02241	.01805	.01483
3	2	.83333	.83809	.85664	.87377	.88796	.90914	.92383	.93452	.94261	.94894
		.36111	.16476	.09949	.06785	.04962	.03011	.02030	.01463	.01106	.00865
3	3	1.83333	1.43615	1.29037	1.21628	1.17182	1.12135	1.09362	1.07614	1.06414	1.05539
		1.36111	.36706	.16827	.09675	.06298	.03294	.02027	.01374	.00993	.00751
4	1	.25000	.35825	.44311	.50960	.56254	.64092	.69584	.73633	.76737	.79191
		.06250	.05917	.05365	.04755	.04180	.03233	.02540	.02036	.01662	.01380
4	2	.58333	.66121	.71731	.75819	.78900	.83210	.86068	.88099	.89615	.90789
		.17361	.10098	.06880	.05042	.03869	.02493	.01742	.01286	.00988	.00783
4	3	1.08333	1.01497	.99598	.98934	.98692	.98618	.98698	.98805	.98907	.98999
		.42361	.16596	.09137	.05856	.04097	.02343	.01521	.01068	.00792	.00610
4	4	2.08333	1.57654	1.38851	1.29193	1.23346	1.16681	1.12917	1.10551	1.08916	1.07719
		1.42361	.35525	.15539	.08659	.05513	.02799	.01690	.01131	.00810	.00608
5	1	.20000	.30873	.39633	.46608	.52222	.60615	.66547	.70945	.74330	.77012
		.04000	.04394	.04292	.03978	.03602	.02892	.02323	.01890	.01560	.01306
5	2	.45000	.55634	.63024	.68366	.72384	.78003	.81733	.84386	.86368	.87904
		.10250	.07103	.05280	.04078	.03239	.02180	.01563	.01174	.00914	.00731
5	3	.78333	.81853	.84793	.86999	.88675	.91021	.92572	.93669	.94485	.95116
		.21361	.10465	.06435	.04406	.03221	.01945	.01305	.00936	.00705	.00550
5	4	1.28333	1.14593	1.09467	1.06890	1.05369	1.03682	1.02782	1.02228	1.01855	1.01587
		.46361	.16396	.08502	.05241	.03566	.01967	.01248	.00863	.00632	.00483
5	5	2.28333	1.68420	1.46196	1.34768	1.27840	1.19881	1.15450	1.12631	1.10681	1.09251
		1.46361	.34513	.14600	.07959	.04990	.02482	.01480	.00982	.00698	.00522
6	1	.16667	.27340	.36180	.43330	.49143	.57914	.64164	.68822	.72419	.75277
		.02778	.03446	.03577	.03438	.03190	.02640	.02160	.01778	.01481	.01247
6	2	.36667	.48541	.56899	.62999	.67618	.74119	.78461	.81562	.83885	.85689
		.06778	.05390	.04291	.03453	.02819	.01963	.01437	.01094	.00860	.00693
6	3	.61667	.69819	.75272	.79099	.81916	.85770	.88276	.90034	.91334	.92335
		.13028	.07511	.05007	.03598	.02716	.01708	.01173	.00855	.00651	.00513
6	4	.95000	.93888	.94313	.94899	.95434	.96271	.96867	.97304	.97637	.97897
		.24139	.10523	.06050	.03965	.02811	.01631	.01067	.00753	.00560	.00433
6	5	1.45000	1.24945	1.17045	1.12885	1.10337	1.07388	1.05740	1.04690	1.03964	1.03432
		.49139	.16118	.08006	.04800	.03203	.01723	.01076	.00737	.00535	.00406
6	6	2.45000	1.77114	1.52027	1.39145	1.31340	1.22379	1.17393	1.14220	1.12024	1.10415
		1.49139	.33656	.13879	.07442	.04612	.02260	.01335	.00879	.00622	.00464
7	1	.14286	.24670	.33496	.40739	.46681	.55725	.62216	.67076	.70841	.73841
		.02041	.02806	.03066	.03039	.02878	.02444	.02031	.01689	.01417	.01200
7	2	.30952	.43361	.52283	.58877	.63911	.71050	.75852	.79295	.81883	.83897
		.04819	.04293	.03617	.03011	.02515	.01801	.01341	.01033	.00818	.00664
7	3	.50952	.61492	.68440	.73305	.76886	.81790	.84984	.87228	.88889	.90169
		.08819	.05784	.04112	.03071	.02378	.01544	.01081	.00799	.00614	.00486
7	4	.75953	.80921	.84382	.86826	.88624	.91076	.92665	.93775	.94594	.95223
		.15068	.07656	.04749	.03257	.02379	.01434	.00959	.00686	.00515	.00401
7	5	1.09286	1.03613	1.01761	1.00955	1.00542	1.00168	1.00019	.99951	.99918	.99903
		.26180	.10466	.05732	.03641	.02527	.01425	.00916	.00639	.00472	.00362

VALUES OF M

N	I	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
7	6	1.59286	1.33478	1.23158	1.17658	1.14255	1.10276	1.08029	1.06586	1.05583	1.04844
		.51180	.15830	.07607	.04466	.02937	.01550	.00956	.00650	.00468	.00354
7	7	2.59286	1.84387	1.56838	1.42726	1.34188	1.24397	1.18953	1.15492	1.13098	1.11344
		1.51180	.32924	.13304	.07040	.04323	.02093	.01227	.00805	.00568	.00422
8	1	.12500	.22569	.31333	.38620	.44649	.53895	.60577	.65600	.69503	.72618
		.01563	.02348	.02683	.02731	.02633	.02286	.01925	.01616	.01364	.01161
8	2	.26786	.39378	.48640	.55572	.60907	.68531	.73693	.77410	.80211	.82397
		.03603	.03536	.03127	.02680	.02282	.01674	.01265	.00984	.00785	.00639
8	3	.43452	.55307	.63213	.68797	.72922	.78608	.82329	.84951	.86897	.88398
		.06381	.04659	.03494	.02694	.02131	.01421	.01011	.00755	.00584	.00466
8	4	.63452	.71800	.77152	.80825	.83492	.87094	.89409	.91022	.92209	.93120
		.10381	.05959	.03928	.02794	.02092	.01298	.00885	.00642	.00487	.00381
8	5	.88453	.90041	.91612	.92826	.93756	.95058	.95920	.96528	.96979	.97327
		.16631	.07690	.04525	.03000	.02139	.01252	.00821	.00579	.00430	.00333
8	6	1.21785	1.11757	1.07851	1.05832	1.04613	1.03234	1.02479	1.02007	1.01680	1.01449
		.27744	.10364	.05468	.03392	.02317	.01279	.00812	.00559	.00419	.00315
8	7	1.71786	1.40718	1.28260	1.21599	1.17468	1.12623	1.09878	1.08113	1.06882	1.05975
		.52742	.15555	.07280	.04205	.02731	.01420	.00867	.00584	.00419	.00316
8	8	2.71786	1.90626	1.60921	1.45744	1.36577	1.26078	1.20250	1.16546	1.13986	1.12111
		1.52743	.32292	.12831	.06717	.04094	.01963	.01144	.00747	.00526	.00390
9	1	.11111	.20864	.29541	.36843	.42930	.52331	.59166	.64324	.68343	.71557
		.01235	.02007	.02384	.02485	.02434	.02155	.01837	.01554	.01319	.01127
9	2	.23611	.36203	.45668	.52839	.58401	.66406	.71859	.75801	.78780	.81109
		.02797	.02987	.02755	.02421	.02097	.01571	.01202	.00943	.00756	.00619
9	3	.37897	.50491	.59040	.65135	.69678	.75971	.80113	.83041	.85220	.86903
		.04838	.03872	.03040	.02409	.01941	.01324	.00955	.00720	.00561	.00449
9	4	.54564	.64939	.71558	.76105	.79410	.83882	.86763	.88773	.90252	.91387
		.07616	.04841	.03358	.02462	.01879	.01197	.00827	.00605	.00461	.00366
9	5	.74563	.80377	.84144	.86726	.88592	.91109	.92717	.93834	.94656	.95286
		.11616	.06033	.03761	.02583	.01891	.01135	.00761	.00545	.00411	.00316
9	6	.99565	.97773	.97587	.97707	.97887	.98219	.98481	.98686	.98838	.98959
		.17863	.07671	.04333	.02797	.01955	.01118	.00722	.00498	.00367	.00290
9	7	1.32895	1.18750	1.12982	1.09895	1.07976	1.05744	1.04477	1.03666	1.03099	1.02692
		.28980	.10239	.05247	.03192	.02162	.01164	.00740	.00510	.00385	.00287
9	8	1.82898	1.46995	1.32624	1.24944	1.20180	1.14590	1.11422	1.09383	1.07962	1.06913
		.53974	.15301	.07005	.03988	.02562	.01315	.00795	.00533	.00377	.00286
9	9	2.82897	1.96079	1.64458	1.48344	1.38626	1.27515	1.21353	1.17440	1.14738	1.12760
		1.53978	.31739	.12434	.06449	.03908	.01858	.01079	.00704	.00495	.00366

TABLE 2

EXPECTED VALUES AND VARIANCES OF ORDER STATISTICS FROM WEIBULL DISTRIBUTION

VALUES OF M

N	I	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
10	1	.1000	.1945	.2802	.3532	.4145	.5097	.5793	.6320	.6732	.7062
		.0100	.0174	.0215	.0228	.0227	.0204	.0176	.0150	.0128	.0110
10	2	.2111	.3360	.4318	.5053	.5626	.6457	.7027	.7440	.7753	.7998
		.0223	.0257	.0246	.0221	.0195	.0149	.0115	.0091	.0073	.0060
10	3	.3361	.4661	.5560	.6209	.6695	.7373	.7822	.8140	.8377	.8561
		.0380	.0329	.0269	.0219	.0179	.0124	.0091	.0069	.0054	.0044
10	4	.4790	.5954	.6705	.7225	.7604	.8120	.8454	.8687	.8859	.8992
		.0584	.0405	.0293	.0221	.0172	.0112	.0078	.0058	.0044	.0035
10	5	.6456	.7303	.7831	.8189	.8446	.8790	.9010	.9163	.9274	.9359
		.0862	.0494	.0323	.0228	.0170	.0104	.0071	.0051	.0038	.0031
10	6	.8456	.8772	.8997	.9156	.9272	.9431	.9533	.9604	.9657	.9698
		.1262	.0605	.0361	.0242	.0174	.0102	.0068	.0050	.0036	.0026
10	7	1.0957	1.0447	1.0267	1.0180	1.0133	1.0081	1.0059	1.0045	1.0034	1.0028
		.1886	.0763	.0417	.0263	.0179	.0103	.0063	.0043	.0032	.0024
10	8	1.4289	1.2487	1.1740	1.1336	1.1082	1.0785	1.0615	1.0505	1.0428	1.0372
		.2999	.1012	.0506	.0304	.0205	.0108	.0069	.0047	.0036	.0026
10	9	1.9290	1.5253	1.3643	1.2784	1.2252	1.1627	1.1274	1.1047	1.0888	1.0771
		.5497	.1506	.0677	.0381	.0242	.0124	.0074	.0049	.0034	.0026
10	10	2.9290	2.0092	1.6757	1.5062	1.4042	1.2876	1.2231	1.1822	1.1539	1.1332
		1.5498	.3125	.1209	.0622	.0375	.0177	.0103	.0066	.0047	.0034
11	1	.0909	.1825	.2672	.3400	.4015	.4977	.5684	.6221	.6641	.6978
		.0083	.0154	.0195	.0212	.0213	.0195	.0169	.0145	.0125	.0107
11	2	.1909	.3142	.4107	.4854	.5441	.6297	.6887	.7317	.7643	.7898
		.0183	.0225	.0223	.0204	.0182	.0141	.0110	.0088	.0071	.0059
11	3	.3020	.4341	.5271	.5949	.6461	.7179	.7656	.7996	.8251	.8448
		.0306	.0285	.0242	.0200	.0166	.0118	.0087	.0066	.0052	.0042
11	4	.4270	.5516	.6332	.6901	.7319	.7891	.8262	.8522	.8715	.8864
		.0462	.0347	.0261	.0201	.0159	.0105	.0075	.0056	.0043	.0035
11	5	.5699	.6722	.7360	.7792	.8103	.8521	.8789	.8975	.9112	.9216
		.0666	.0415	.0283	.0205	.0155	.0099	.0067	.0048	.0036	.0028
11	6	.7365	.8001	.8398	.8665	.8857	.9114	.9275	.9387	.9469	.9531
		.0944	.0499	.0313	.0215	.0156	.0092	.0063	.0046	.0034	.0029
11	7	.9366	.9414	.9497	.9565	.9618	.9698	.9750	.9785	.9813	.9839
		.1344	.0604	.0347	.0227	.0163	.0092	.0059	.0044	.0033	.0018
11	8	1.1866	1.1038	1.0706	1.0531	1.0427	1.0303	1.0234	1.0194	1.0160	1.0138
		.1968	.0759	.0404	.0251	.0165	.0091	.0057	.0035	.0029	.0025
11	9	1.5198	1.3029	1.2128	1.1638	1.1328	1.0966	1.0757	1.0621	1.0528	1.0460
		.3083	.1000	.0488	.0290	.0197	.0103	.0066	.0048	.0037	.0025
11	10	2.0199	1.5747	1.3980	1.3038	1.2458	1.1774	1.1390	1.1141	1.0968	1.0841
		.5579	.1485	.0656	.0367	.0226	.0116	.0066	.0047	.0029	.0022
11	11	3.0199	2.0526	1.7035	1.5265	1.4200	1.2987	1.2315	1.1890	1.1596	1.1381
		1.5581	.3082	.1180	.0603	.0362	.0170	.0098	.0063	.0045	.0033
12	1	.0833	.1722	.2558	.3284	.3900	.4870	.5586	.6131	.6559	.6903
		.0069	.0137	.0179	.0197	.0201	.0187	.0164	.0141	.0121	.0105
12	2	.1742	.2957	.3923	.4679	.5278	.6155	.6762	.7206	.7544	.7809
		.0152	.0199	.0203	.0190	.0171	.0135	.0106	.0085	.0069	.0057
12	3	.2742	.4070	.5023	.5724	.6256	.7008	.7510	.7869	.8138	.8346
		.0252	.0251	.0219	.0185	.0156	.0112	.0084	.0065	.0051	.0041
12	4	.3854	.5152	.6016	.6624	.7074	.7691	.8095	.8379	.8589	.8751
		.0376	.0301	.0235	.0185	.0148	.0100	.0071	.0053	.0041	.0033

TABLE 2

CONTINUED

N	I	VALUES OF M 1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
12	5	.5103	.6244	.6964	.7455	.7810	.8290	.8596	.8809	.8967	.9088
		.0532	.0358	.0254	.0188	.0144	.0091	.0066	.0050	.0038	.0030
12	6	.6533	.7390	.7913	.8264	.8514	.8844	.9060	.9207	.9313	.9395
		.0735	.0418	.0272	.0189	.0141	.0091	.0056	.0038	.0027	.0018
12	7	.8197	.8613	.8883	.9066	.9201	.9384	.9490	.9566	.9621	.9668
		.1015	.0505	.0307	.0209	.0146	.0076	.0059	.0050	.0048	.0038
12	8	1.0200	.9986	.9938	.9923	.9916	.9920	.9932	.9941	.9953	.9960
		.1411	.0596	.0324	.0209	.0153	.0098	.0058	.0034	.0021	.0000
12	9	1.2698	1.1565	1.1092	1.0836	1.0683	1.0494	1.0383	1.0320	1.0267	1.0226
		.2041	.0754	.0394	.0245	.0153	.0081	.0057	.0032	.0023	.0037
12	10	1.6032	1.3517	1.2474	1.1905	1.1543	1.1125	1.0878	1.0723	1.0617	1.0542
		.3151	.0987	.0473	.0276	.0193	.0096	.0073	.0045	.0037	.0012
12	11	2.1033	1.6193	1.4281	1.3265	1.2639	1.1903	1.1490	1.1225	1.1037	1.0899
		.5647	.1464	.0639	.0353	.0217	.0111	.0063	.0040	.0026	.0024
12	12	3.1032	2.0920	1.7285	1.5446	1.4342	1.3085	1.2390	1.1950	1.1647	1.1425
		1.5651	.3042	.1154	.0586	.0351	.0164	.0094	.0062	.0044	.0032

TABLE 2

EXPECTED CROSS-PRODUCTS AND COVARIANCES OF ORDER STATISTICS FROM WEIBULL

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
2	1	2	1.00000	.73516	.74588	.76077	.77902	.81129	.83641	.85603	.87162	.88425
			.25000	.03180	.02786	.01969	.01554	.01052	.00750	.00561	.00436	.00348
3	1	2	.38889	.40678	.47158	.52511	.57027	.64014	.69105	.72959	.75968	.78381
			.11111	.04306	.03327	.02554	.02048	.01400	.01014	.00767	.00600	.00482
3	1	3	.72222	.53246	.61766	.66295	.70212	.75939	.79764	.82539	.84649	.86303
			.11111	-.00081	-.00256	-.00245	-.00242	-.00190	-.00141	-.00591	-.00435	-.00333
3	2	3	1.88889	1.26524	1.14840	1.08425	1.04466	1.03433	1.02052	1.01311	1.00869	1.00580
			.36111	.06261	.04301	.03151	.02413	.01487	.01020	.00743	.00563	.00440
4	1	2	.20833	.27230	.34702	.41009	.46349	.54728	.60927	.65668	.69400	.72409
			.06250	.03541	.02917	.02372	.01964	.01397	.01037	.00798	.00632	.00512
4	1	3	.33333	.33065	.42478	.49066	.54526	.62644	.68309	.72493	.75707	.78251
			.06250	-.03296	-.01654	-.01350	-.00991	-.00562	-.00368	-.00259	-.00190	-.00146
4	2	3	.80556	.75189	.76749	.78960	.80883	.83957	.86259	.88005	.89367	.90456
			.17361	.08078	.05307	.03949	.03015	.01897	.01311	.00959	.00731	.00576
4	1	4	.58333	.43827	.55059	.60708	.65518	.72532	.77068	.80312	.82764	.84673
			.06250	-.12652	-.06467	-.05128	-.03868	-.02225	-.01504	-.01088	-.00814	-.00629
4	2	4	1.38889	.92264	.94469	.96697	.98284	.98047	.96610	.97037	.97359	.97617
			.17361	-.11979	-.05129	-.03254	-.02035	-.01009	-.00574	-.00356	-.00244	-.00179
4	3	4	2.68056	1.69521	1.44071	1.32021	1.24849	1.16864	1.12670	1.10100	1.08375	1.07143
			.42361	.09507	.05779	.04206	.03117	.01836	.01224	.00871	.00650	.00504
5	1	2	.13000	.20040	.27491	.34000	.39618	.48619	.55405	.60659	.64829	.68214
			.04000	.02864	.02513	.02136	.01818	.01338	.01014	.00791	.00633	.00517
5	1	3	.19667	.23671	.32798	.39863	.45807	.54892	.61424	.66330	.70142	.73184
			.04000	-.01599	-.00807	-.00685	-.00500	-.00279	-.00178	-.00122	-.00088	-.00066
5	2	3	.45500	.52357	.58237	.63182	.67084	.72891	.76996	.80034	.82369	.84218
			.10250	.06819	.04798	.03705	.02898	.01893	.01335	.00990	.00764	.00606
5	1	4	.29667	.28903	.39686	.46679	.52573	.61349	.67260	.71765	.75131	.77782
			.04000	-.06474	-.03699	-.03140	-.02452	-.01496	-.01038	-.00760	-.00576	-.00451
5	2	4	.68000	.60177	.67424	.72247	.75873	.80734	.83976	.86276	.87990	.89322
			.10250	-.03574	-.01566	-.00829	-.00397	-.00140	-.00030	.00010	.00021	.00023
5	3	4	1.21889	1.05528	.99024	.98094	.97186	.96634	.96662	.96841	.97054	.97262
			.21361	.11730	.07104	.05100	.03750	.02262	.01515	.01085	.00816	.00636
5	1	5	.49667	.38206	.50635	.56898	.62196	.70004	.75000	.78561	.81255	.83350
			.04000	-.13790	-.07306	-.05915	-.04563	-.02661	-.01828	-.01345	-.01013	-.00786
5	2	5	1.13000	.75615	.83702	.86167	.88428	.91301	.92980	.94119	.94926	.95531
			.10250	-.18081	-.08435	-.05967	-.04107	-.02208	-.01380	-.00925	-.00666	-.00505
5	3	5	2.00222	1.24955	1.18759	1.14453	1.11847	1.08449	1.06558	1.05336	1.04477	1.03849
			.21361	-.12901	-.05204	-.02794	-.01515	-.00666	-.00315	-.00164	-.00099	-.00065
5	4	5	3.39389	2.05707	1.67223	1.49187	1.38404	1.26413	1.20044	1.16108	1.13448	1.11535
			.46361	.12711	.07186	.05133	.03700	.02118	.01361	.00967	.00715	.00550
6	1	2	.08889	.15630	.22773	.29225	.34908	.44197	.51325	.56906	.61372	.65017
			.02778	.02359	.02187	.01927	.01679	.01272	.00981	.00774	.00624	.00513
6	1	3	.13056	.18196	.26802	.33899	.39990	.49536	.56560	.61911	.66108	.69483
			.02778	-.00891	-.00431	-.00374	-.00264	-.00136	-.00080	-.00051	-.00034	-.00023
6	2	3	.29389	.39526	.47052	.53201	.58087	.65391	.70569	.74415	.77379	.79731
			.06778	.05636	.04223	.03369	.02697	.01819	.01306	.00981	.00763	.00611
6	1	4	.18611	.21542	.31582	.38859	.45091	.54606	.61343	.66366	.70248	.73331
			.02778	-.04126	-.02540	-.02260	-.01807	-.01147	-.00810	-.00599	-.00459	-.00362
6	2	4	.41611	.44352	.53221	.59763	.64687	.71534	.76179	.79517	.82030	.83993
			.06778	-.01222	-.00441	-.00022	.00156	.00179	.00176	.00153	.00128	.00106

TABLE 3

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
6	3	4	.71611	.75606	.77523	.79864	.81778	.84821	.87046	.88722	.90023	.91059
			.13028	.10054	.06532	.04799	.03602	.02249	.01536	.01115	.00847	.00666
6	1	5	.26944	.26177	.37648	.44865	.50990	.60200	.66441	.71003	.74491	.77233
			.02778	-.07982	-.04698	-.04047	-.03232	-.01992	-.01405	-.01045	-.00798	-.00627
6	2	5	.59945	.51804	.62006	.67756	.72286	.78285	.82150	.84848	.86820	.88334
			.06778	-.08844	-.04590	-.03360	-.02320	-.01309	-.00814	-.00538	-.00388	-.00295
6	3	5	1.02444	.84376	.87044	.89223	.90645	.92382	.93600	.94463	.95122	.95640
			.13028	-.02858	-.01058	-.00067	.00262	.00276	.00257	.00207	.00167	.00136
6	4	5	1.61889	1.32527	1.19152	1.13204	1.09638	1.05927	1.04094	1.03047	1.02385	1.01937
			.24138	.15219	.08764	.06076	.04340	.02543	.01667	.01179	.00878	.00680
6	1	6	.43611	.34377	.47379	.54026	.59638	.67989	.73320	.77117	.79997	.82240
			.02778	-.14045	-.07624	-.06265	-.04905	-.02885	-.02003	-.01490	-.01128	-.00877
6	2	6	.96611	.65551	.76649	.80415	.83633	.87869	.90277	.91895	.93049	.93907
			.06778	-.20421	-.09852	-.07244	-.05175	-.02836	-.01829	-.01264	-.00921	-.00706
6	3	6	1.64111	1.02617	1.05128	1.04001	1.03691	1.02956	1.02449	1.02090	1.01794	1.01566
			.13028	-.21041	-.09305	-.06951	-.03897	-.02008	-.01179	-.00745	-.00522	-.00385
6	4	6	2.56888	1.53374	1.28418	1.20839	1.24350	1.17466	1.13617	1.11124	1.09385	1.08108
			.24138	-.12915	-.04962	-.02217	-.00992	-.00349	-.00097	-.00016	.00008	.00015
6	5	6	4.04389	2.37086	1.86442	1.63022	1.49109	1.33771	1.25638	1.20620	1.17230	1.14792
			.49139	.15790	.08503	.05948	.04192	.02351	.01507	.01043	.00765	.00587
7	1	2	.06463	.12680	.19442	.25739	.31392	.40802	.48139	.53943	.58620	.62457
			.02041	.01983	.01929	.01753	.01558	.01210	.00947	.00755	.00613	.00507
7	1	3	.09320	.14630	.22688	.29657	.35757	.45522	.52851	.58500	.62969	.66583
			.02041	-.00539	-.00236	-.00206	-.00134	-.00054	-.00022	-.00007	-.00000	.00002
7	2	3	.20590	.21381	.30515	.46225	.51642	.59847	.65729	.70129	.73539	.76255
			.04819	.04718	.03733	.03065	.02504	.01735	.01266	.00962	.00754	.00606
7	1	4	.12891	.17039	.26358	.33611	.39935	.49812	.56979	.62397	.66623	.70004
			.02041	-.02923	-.01906	-.01761	-.01434	-.00939	-.00672	-.00502	-.00388	-.00308
7	2	4	.28328	.34773	.44146	.51441	.57035	.65037	.70561	.74581	.77635	.80037
			.04819	-.00314	.00029	.00321	.00395	.00327	.00273	.00221	.00170	.00147
7	3	4	.47518	.58193	.63578	.68035	.71503	.76654	.80253	.82902	.84930	.86531
			.08819	.08433	.05827	.04389	.03364	.02163	.01502	.01104	.00846	.00669
7	1	5	.17653	.20051	.30602	.37994	.44370	.54175	.61047	.66156	.70102	.73229
			.02041	-.05509	-.03483	-.03133	-.02564	-.01642	-.01180	-.00886	-.00680	-.00538
7	2	5	.38645	.39522	.50194	.57200	.62723	.70283	.75323	.78902	.81556	.83618
			.04819	-.05405	-.03009	-.02238	-.01533	-.00886	-.00543	-.00354	-.00259	-.00197
7	3	5	.64502	.63550	.69869	.74808	.78127	.82531	.85462	.87534	.89095	.90304
			.08819	-.00163	.00215	.00803	.00825	.00604	.00461	.00351	.00278	.00223
7	4	5	.98074	.97037	.94023	.93379	.93271	.93750	.94368	.94936	.95425	.95839
			.15069	.13102	.08155	.05724	.04167	.02521	.01686	.01207	.00908	.00708
7	1	6	.24796	.24203	.36030	.43389	.49657	.59175	.65590	.70274	.73858	.76679
			.02041	-.08724	-.05222	-.04543	-.03677	-.02275	-.01620	-.01219	-.00937	-.00737
7	2	6	.54121	.45325	.58214	.64518	.69559	.76347	.80631	.83614	.85797	.87454
			.04818	-.11551	-.06175	-.04754	-.03461	-.02003	-.01311	-.00902	-.00656	-.00505
7	3	6	.89979	.72305	.79507	.83169	.85941	.89194	.91254	.92645	.93620	.94366
			.08819	-.09772	-.04781	-.03078	-.01904	-.01000	-.00552	-.00326	-.00230	-.00169
7	4	6	1.36049	1.06306	1.03523	1.02870	1.02127	1.01075	1.00586	1.00293	1.00141	1.00044
			.15068	-.01704	-.00399	.00713	.00870	.00640	.00482	.00342	.00266	.00208
7	5	6	2.00256	1.56827	1.35624	1.25699	1.19699	1.13229	1.09834	1.07790	1.06427	1.05460
			.26180	.18526	.10297	.06918	.04826	.02768	.01784	.01257	.00930	.00718

TABLE 3

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
7	1	7	.39082	.31547	.44822	.51730	.57563	.66309	.71902	.75887	.78921	.81283
			.02041	-.13940	-.07712	-.06414	-.05076	-.03009	-.02105	-.01579	-.01198	-.00933
7	2	7	.85074	.58697	.71512	.76142	.79995	.85198	.88138	.90107	.91520	.92584
			.04819	-.21253	-.10486	-.07890	-.05764	-.03186	-.02090	-.01472	-.01087	-.00829
7	3	7	1.40931	.88873	.96140	.96910	.97946	.98973	.99379	.99610	.99733	.99781
			.08819	-.24510	-.11198	-.07714	-.05224	-.02770	-.01712	-.01130	-.00798	-.00616
7	4	7	2.12003	1.26465	1.22657	1.18036	1.15354	1.11526	1.09249	1.07719	1.06578	1.05750
			.15069	-.22742	-.09685	-.05886	-.03568	-.01769	-.00977	-.00583	-.00405	-.00274
7	5	7	3.09541	1.78595	1.55023	1.42467	1.34405	1.24535	1.19058	1.15534	1.13098	1.11304
			.26179	-.12454	-.04576	-.01620	-.00509	-.00070	.00082	.00098	.00093	.00068
7	6	7	4.64186	2.64835	2.02890	1.74597	1.57931	1.39727	1.30115	1.24203	1.20217	1.17355
			.51181	.18719	.09731	.06669	.04616	.02547	.01611	.01105	.00806	.00618
8	1	2	.04911	.10584	.16963	.23069	.28647	.38088	.45555	.51516	.56350	.60334
			.01562	.01697	.01722	.01607	.01453	.01153	.00915	.00736	.00601	.00499
8	1	3	.06994	.12139	.19681	.26461	.32503	.42362	.49886	.55747	.60416	.64213
			.01563	-.00343	-.00124	-.00105	-.00055	-.00003	.00014	.00019	.00020	.00020
8	2	3	.15242	.25795	.34078	.41034	.46747	.55526	.61895	.66699	.70442	.73436
			.03603	.04016	.03331	.02805	.02333	.01655	.01224	.00938	.00740	.00599
8	1	4	.09494	.13994	.22661	.29773	.36087	.46139	.53580	.59272	.63748	.67350
			.01562	-.02209	-.01512	-.01441	-.01191	-.00799	-.00580	-.00437	-.00339	-.00271
8	2	4	.20600	.28362	.37777	.45404	.51364	.60091	.66217	.70723	.74174	.76901
			.03603	.00088	.00251	.00488	.00512	.00404	.00328	.00264	.00212	.00174
8	3	4	.33953	.46856	.53979	.59612	.64018	.70529	.75069	.78408	.80964	.82981
			.06381	.07146	.05209	.04011	.03134	.02066	.01459	.01084	.00837	.00665
8	1	5	.12619	.16188	.25940	.33277	.39711	.49812	.57072	.62540	.66796	.70193
			.01563	-.04133	-.02764	-.02572	-.02150	-.01419	-.01032	-.00781	-.00606	-.00483
8	2	5	.27296	.31775	.42397	.49961	.56005	.64502	.70298	.74471	.77607	.80057
			.03603	-.03681	-.02162	-.01623	-.01097	-.00642	-.00387	-.00251	-.00180	-.00135
8	3	5	.44816	.50593	.58633	.64995	.69407	.75462	.79512	.82404	.84585	.86286
			.06381	.00793	.00722	.01138	.01038	.00739	.00542	.00402	.00313	.00251
8	4	5	.66506	.75842	.78025	.80278	.82181	.85218	.87412	.89059	.90333	.91345
			.10381	.11192	.07345	.05251	.03902	.02428	.01651	.01197	.00909	.00715
8	1	6	.16786	.18916	.29754	.37221	.43686	.53703	.60674	.65849	.69849	.73019
			.01562	-.06305	-.04038	-.03651	-.03021	-.01934	-.01404	-.01066	-.00820	-.00650
8	2	6	.36225	.36182	.47978	.55239	.61079	.69155	.74468	.78234	.81032	.83179
			.03604	-.07825	-.04479	-.03572	-.02636	-.01591	-.01051	-.00729	-.00526	-.00410
8	3	6	.59300	.56152	.65212	.70999	.75265	.80647	.84145	.86549	.88266	.89616
			.06381	-.05656	-.02962	-.01803	-.01020	-.00502	-.00224	-.00106	-.00089	-.00062
8	4	6	.87656	.81439	.84187	.87159	.88757	.90857	.92290	.93326	.94156	.94782
			.10381	.01198	.00978	.01620	.01413	.00947	.00664	.00478	.00398	.00313
8	5	6	1.24354	1.16832	1.08480	1.04759	1.02718	1.00872	1.00105	.99747	.99562	.99473
			.16631	.16205	.09676	.06520	.04636	.02740	.01807	.01281	.00953	.00736
8	1	7	.23036	.22678	.34684	.42129	.48499	.58240	.64798	.69583	.73256	.76146
			.01563	-.09079	-.05503	-.04832	-.03949	-.02458	-.01761	-.01338	-.01029	-.00810
8	2	7	.49617	.42406	.55312	.62028	.67394	.74796	.79387	.82576	.84888	.86663
			.03602	-.13006	-.07073	-.05545	-.04151	-.02385	-.01585	-.01113	-.00843	-.00655
8	3	7	.81026	.64307	.74255	.78777	.82367	.86642	.89282	.91078	.92385	.93411
			.06381	-.13519	-.06821	-.04873	-.03292	-.01887	-.01179	-.00764	-.00492	-.00368
8	4	7	1.19384	.91073	.94288	.95674	.96632	.97444	.97969	.98285	.98423	.98592
			.10383	-.09962	-.04666	-.02608	-.01443	-.00643	-.00271	-.00120	-.00131	-.00091

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
8	5	7	1.68578	1.26357	1.17808	1.14323	1.11559	1.07998	1.06045	1.04781	1.03990	1.03400
			.16629	-.00347	.00306	.01447	.01425	.00940	.00650	.00422	.00336	.00258
8	6	7	2.36953	1.78920	1.50045	1.36351	1.28120	1.19217	1.14483	1.11609	1.09660	1.08266
			.27743	.21658	.11716	.07661	.05233	.02952	.01881	.01326	.00982	.00756
8	1	8	.35536	.29340	.42728	.49826	.55822	.64876	.70680	.74820	.77979	.80443
			.01562	-.13680	-.07692	-.06460	-.05157	-.03073	-.02162	-.01633	-.01244	-.00969
8	2	8	.76404	.53660	.67521	.72756	.77077	.82982	.86340	.88593	.90238	.91462
			.03604	-.21404	-.10750	-.08236	-.06106	-.03420	-.02275	-.01624	-.01190	-.00912
8	3	8	1.24477	.79435	.89592	.91663	.93591	.95937	.97007	.97655	.98037	.98345
			.06379	-.25993	-.12129	-.08596	-.06002	-.03169	-.01993	-.01351	-.01012	-.00758
8	4	8	1.82837	1.09644	1.12166	1.09949	1.08946	1.07130	1.05906	1.05058	1.04441	1.03854
			.10383	-.27225	-.11987	-.07848	-.05083	-.02676	-.01607	-.01023	-.00663	-.00543
8	5	8	2.57031	1.47928	1.37620	1.29691	1.24840	1.18342	1.14576	1.12071	1.10218	1.08961
			.16629	-.23713	-.09803	-.05597	-.03208	-.01505	-.00766	-.00428	-.00324	-.00152
8	6	8	3.58737	2.01309	1.69429	1.53206	1.42800	1.30319	1.23456	1.19070	1.16069	1.13827
			.27743	-.11727	-.04124	-.01036	-.00076	.00163	.00225	.00185	.00169	.00091
8	7	8	5.19633	2.89742	2.17274	1.84537	1.65422	1.44713	1.33830	1.27158	1.22668	1.19459
			.52743	.21497	.10877	.07314	.04988	.02719	.01702	.01157	.00838	.00650
9	1	2	.03858	.09028	.15045	.20952	.26435	.35854	.43401	.49476	.54430	.58530
			.01235	.01474	.01554	.01484	.01363	.01103	.00885	.00717	.00589	.00491
9	1	3	.05445	.10309	.17383	.23954	.29907	.39787	.47438	.53454	.58277	.62217
			.01235	-.00225	-.00057	-.00043	-.00004	.00030	.00038	.00038	.00035	.00032
9	2	3	.11745	.21751	.29964	.37002	.42877	.52031	.58753	.63862	.67863	.71076
			.02797	.03472	.03002	.02585	.02184	.01582	.01185	.00916	.00727	.00590
9	1	4	.07297	.11803	.19895	.26821	.33068	.43194	.50820	.56712	.61376	.65149
			.01235	-.01745	-.01243	-.01218	-.01022	-.00701	-.00513	-.00390	-.00304	-.00243
9	2	4	.15680	.23787	.33042	.40785	.46947	.56150	.62708	.67579	.71334	.74316
			.02797	.00277	.00362	.00572	.00571	.00448	.00361	.00288	.00234	.00193
9	3	4	.25516	.38930	.46936	.53254	.58259	.65700	.70916	.74771	.77731	.80073
			.04838	.06141	.04688	.03682	.02928	.01974	.01408	.01054	.00819	.00655
9	1	5	.09519	.13504	.22564	.29762	.36176	.46423	.53931	.59653	.64141	.67745
			.01235	-.03265	-.02292	-.02190	-.01856	-.01255	-.00925	-.00704	-.00549	-.00437
9	2	5	.20402	.26421	.36782	.44571	.50912	.60015	.66325	.70932	.74426	.77168
			.02797	-.02677	-.01645	-.01253	-.00826	-.00486	-.00299	-.00194	-.00143	-.00116
9	3	5	.33096	.41739	.50613	.57782	.62860	.70019	.74880	.78377	.81022	.83099
			.04838	.01156	.00934	.01293	.01131	.00803	.00602	.00457	.00356	.00293
9	4	5	.48300	.61773	.66839	.70820	.74001	.78748	.82052	.84480	.86333	.87788
			.07615	.09578	.06628	.04817	.03650	.02324	.01608	.01182	.00904	.00709
9	1	6	.12297	.15514	.25532	.32915	.39420	.49682	.57006	.62510	.66796	.70201
			.01234	-.04885	-.03295	-.03082	-.02602	-.01716	-.01261	-.00968	-.00752	-.00610
9	2	6	.26306	.29615	.41076	.48782	.55016	.63885	.69901	.74203	.77421	.79950
			.02798	-.05781	-.03489	-.02844	-.02150	-.01337	-.00865	-.00601	-.00443	-.00314
9	3	6	.42568	.45725	.55610	.62507	.67677	.74404	.78840	.81949	.84245	.85998
			.04836	-.03641	-.02004	-.01134	-.00527	-.00213	-.00055	.00000	.00015	-.00000
9	4	6	.61941	.65643	.71342	.76271	.79288	.83424	.86136	.88077	.89564	.90728
			.07614	.02150	.01511	.01912	.01556	.01037	.00691	.00471	.00360	.00293
9	5	6	.85854	.92461	.90883	.90738	.91083	.92136	.93091	.93882	.94527	.95057
			.11615	.13874	.08770	.06001	.04363	.02650	.01782	.01282	.00971	.00763
9	1	7	.16001	.17998	.29004	.36505	.43027	.53199	.60256	.65487	.69541	.72767
			.01235	-.06777	-.04371	-.03983	-.03326	-.02137	-.01559	-.01194	-.00919	-.00715

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
9	2	7	.34174	.33706	.46173	.53714	.59782	.68285	.73766	.77675	.80554	.82732
			.02796	-.09285	-.05423	-.04353	-.03276	-.01934	-.01309	-.00904	-.00666	-.00559
9	3	7	.55203	.50986	.61945	.67976	.72764	.78798	.82719	.85393	.87399	.88913
			.04840	-.08971	-.04758	-.03603	-.02470	-.01536	-.00979	-.00691	-.00461	-.00329
9	4	7	.80128	.71746	.78087	.82514	.85[illegible]9	.88735	.90876	.92292	.93158	.93916
			.07615	-.05368	-.02760	-.01120	-.00394	.00035	.00229	.00266	.00119	.00069
9	5	7	1.10707	.98135	.96870	.97646	.97562	.97492	.97621	.97774	.98096	.98248
			.11616	.02688	.01803	.02339	.01904	.01149	.00753	.00501	.00507	.00397
9	6	7	1.50183	1.35195	1.21361	1.14595	1.10732	1.06790	1.04811	1.03660	1.02876	1.02368
			.17866	.19089	.11105	.07220	.05037	.02929	.01921	.01357	.00974	.00745
9	1	8	.21557	.21448	.33520	.41039	.47482	.57404	.64080	.68952	.72698	.75638
			.01235	-.09220	-.05658	-.04993	-.04111	-.02561	-.01844	-.01407	-.01085	-.00864
9	2	8	.45982	.39418	.53029	.59917	.65543	.73336	.78195	.81552	.84028	.85949
			.02798	-.13798	-.07538	-.06102	-.04642	-.02758	-.01871	-.01361	-.01024	-.00766
9	3	8	.74144	.58577	.70157	.75624	.79635	.84967	.88003	.90039	.91362	.92394
			.04832	-.15641	-.08143	-.05758	-.04102	-.02087	-.01259	-.00792	-.00643	-.00517
9	4	8	1.07415	.80830	.87926	.90183	.92408	.94135	.95384	.96218	.97072	.97457
			.07619	-.14626	-.06977	-.04905	-.03027	-.01984	-.01288	-.00884	-.00365	-.00246
9	5	8	1.47989	1.08415	1.07165	1.06370	1.05446	1.04292	1.03466	1.02794	1.02063	1.01782
			.11614	-.09734	-.04429	-.01987	-.01024	-.00109	.00158	.00156	-.00128	-.00090
9	6	8	1.99961	1.44822	1.30442	1.24172	1.19600	1.13684	1.10452	1.08374	1.07107	1.06103
			.17859	.01101	.01017	.02093	.01960	.01135	.00722	.00428	.00399	.00302
9	7	8	2.72041	1.99178	1.62873	1.45632	1.35336	1.24282	1.18377	1.14797	1.12346	1.10590
			.28978	.24622	.13032	.08324	.05570	.03110	.01967	.01404	.01038	.00799
9	1	9	.32668	.27552	.40969	.48200	.54322	.63617	.69598	.73871	.77139	.79694
			.01235	-.13357	-.07613	-.06453	-.05189	-.03112	-.02201	-.01671	-.01276	-.00993
9	2	9	.69592	.49746	.64255	.69997	.74659	.81160	.84853	.87330	.89139	.90491
			.02797	-.21240	-.10849	-.08385	-.06299	-.03516	-.02349	-.01690	-.01250	-.00966
9	3	9	1.12051	.72523	.84563	.87452	.90099	.93267	.94872	.95901	.96635	.97130
			.04842	-.26479	-.12531	-.09172	-.06491	-.03606	-.02346	-.01622	-.01144	-.00862
9	4	9	1.61964	.97908	1.04453	1.04029	1.04061	1.04051	1.03569	1.03116	1.02590	1.02358
			.07605	-.29423	-.13228	-.08867	-.06022	-.02910	-.01719	-.01138	-.00962	-.00489
9	5	9	2.22564	1.28581	1.25937	1.20808	1.17962	1.13453	1.10864	1.09201	1.08125	1.06957
			.11626	-.29020	-.12443	-.07843	-.04849	-.02724	-.01650	-.00997	-.00481	-.00486
9	6	9	2.99520	1.67437	1.50713	1.39682	1.32854	1.24085	1.19022	1.15647	1.13114	1.11609
			.17853	-.24274	-.09776	-.05259	-.02842	-.01157	-.00486	-.00248	-.00290	.00023
9	7	9	4.04939	2.22014	1.82166	1.62553	1.49983	1.35176	1.27097	1.21990	1.18553	1.15850
			.28983	-.10829	-.03639	-.00469	.00300	.00337	.00311	.00245	.00259	.00055
9	8	9	5.71388	3.12356	2.30060	1.93234	1.71926	1.48995	1.37000	1.29661	1.24731	1.21241
			.53976	.24129	.11949	.07887	.05325	.02875	.01786	.01201	.00858	.00685

EXPECTED CROSS-PRODUCTS AND COVARIANCES OF ORDER STATISTICS FROM WEIBULL

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
10	1	2	.0311	.0783	.1352	.1923	.2461	.3397	.4157	.4773	.5277	.5697
			.0100	.0130	.0142	.0138	.0129	.0106	.0086	.0070	.0058	.0048
10	1	3	.0436	.0891	.1557	.2193	.2778	.3763	.4537	.5150	.5644	.6050
			.0100	-.0014	-.0001	.0000	.0003	.0005	.0006	.0005	.0005	.0004
10	2	3	.0933	.1870	.2674	.3377	.3972	.4913	.5611	.6146	.6566	.6906
			.0223	.0304	.0273	.0240	.0206	.0152	.0115	.0089	.0071	.0058
10	1	4	.0579	.1015	.1774	.2447	.3062	.4076	.4851	.5455	.5937	.6328
			.0100	-.0142	-.0104	-.0104	-.0088	-.0061	-.0045	-.0034	-.0027	-.0021
10	2	4	.1235	.2038	.2937	.3711	.4338	.5291	.5978	.6493	.6893	.7212
			.0223	.0037	.0041	.0061	.0060	.0047	.0037	.0030	.0024	.0020
10	3	4	.1990	.3311	.4154	.4826	.5366	.6176	.6749	.7174	.7502	.7763
			.0380	.0535	.0425	.0341	.0275	.0189	.0137	.0103	.0081	.0065
10	1	5	.0746	.1154	.2000	.2701	.3335	.4366	.5134	.5725	.6192	.6568
			.0100	-.0266	-.0194	-.0191	-.0164	-.0114	-.0085	-.0065	-.0051	-.0041
10	2	5	.1586	.2249	.3253	.4039	.4687	.5638	.6309	.6803	.7180	.7478
			.0223	-.0204	-.0128	-.0098	-.0064	-.0038	-.0021	-.0013	-.0009	-.0006
10	3	5	.2550	.3531	.4456	.5220	.5772	.6566	.7111	.7507	.7808	.8044
			.0380	.0127	.0101	.0136	.0117	.0085	.0064	.0048	.0039	.0032
10	4	5	.3676	.5178	.5852	.6359	.6764	.7360	.7771	.8072	.8303	.8485
			.0584	.0830	.0601	.0442	.0341	.0222	.0154	.0113	.0087	.0069
10	1	6	.0946	.1309	.2243	.2967	.3615	.4653	.5409	.5983	.6433	.6794
			.0100	-.0396	-.0278	-.0266	-.0227	-.0153	-.0113	-.0086	-.0067	-.0054
10	2	6	.2009	.2497	.3595	.4389	.5038	.5978	.6624	.7095	.7449	.7729
			.0223	-.0449	-.0290	-.0237	-.0178	-.0111	-.0074	-.0050	-.0038	-.0026
10	3	6	.3222	.3842	.4866	.5605	.6181	.6945	.7453	.7816	.8089	.8294
			.0380	-.0246	-.0136	-.0079	-.0026	-.0008	-.0003	-.0000	-.0000	-.0008
10	4	6	.4634	.5467	.6200	.6824	.7213	.7767	.8140	.8403	.8601	.8764
			.0584	.0244	.0167	.0209	.0162	.0108	.0081	.0060	.0046	.0043
10	5	6	.6321	.7604	.7845	.8051	.8242	.8546	.8765	.8929	.9054	.9150
			.0862	.1197	.0799	.0553	.0410	.0255	.0175	.0129	.0098	.0074
10	1	7	.1196	.1496	.2511	.3253	.3907	.4946	.5683	.6237	.6669	.7013
			.0100	-.0535	-.0365	-.0342	-.0292	-.0192	-.0143	-.0111	-.0086	-.0068
10	2	7	.2536	.2798	.4007	.4782	.5426	.6340	.6955	.7390	.7719	.7960
			.0223	-.0712	-.0426	-.0361	-.0274	-.0169	-.0112	-.0083	-.0060	-.0060
10	3	7	.4063	.4218	.5335	.6049	.6579	.7305	.7793	.8131	.8375	.8594
			.0380	-.0651	-.0372	-.0270	-.0204	-.0127	-.0074	-.0045	-.0030	.0009
10	4	7	.5831	.5901	.6713	.7312	.7740	.8236	.8549	.8762	.8920	.9013
			.0583	-.0318	-.0170	-.0042	.0034	.0049	.0046	.0036	.0030	-.0003
10	5	7	.7935	.7994	.8279	.8588	.8738	.8971	.9120	.9235	.9329	.9411
			.0861	.0363	.0238	.0252	.0179	.0109	.0057	.0031	.0024	.0025
10	6	7	1.0527	1.0810	1.0245	.9990	.9875	.9797	.9783	.9786	.9796	.9809
			.1262	.1646	.1008	.0668	.0479	.0289	.0194	.0139	.0105	.0083
10	1	8	.1529	.1723	.2834	.3585	.4243	.5272	.5986	.6512	.6923	.7247
			.0100	-.0705	-.0455	-.0418	-.0349	-.0224	-.0163	-.0127	-.0097	-.0077
10	2	8	.3240	.3174	.4466	.5233	.5846	.6728	.7293	.7704	.8000	.8247
			.0223	-.1021	-.0603	-.0494	-.0388	-.0235	-.0165	-.0111	-.0084	-.0048
10	3	8	.5182	.4722	.5911	.6600	.7136	.7811	.8219	.8495	.8706	.8809
			.0380	-.1097	-.0617	-.0437	-.0283	-.0140	-.0082	-.0055	-.0029	-.0071
10	4	8	.7429	.6481	.7432	.7810	.8160	.8546	.8821	.9014	.9158	.9303
			.0584	-.0952	-.0440	-.0379	-.0267	-.0211	-.0151	-.0111	-.0080	-.0023

CONTINUED

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
10	5	8	1.0087	.8649	.8913	.9289	.9412	.9595	.9697	.9751	.9740	.9746
			.0861	-.0469	-.0281	.0006	.0052	.0115	.0133	.0126	.0069	.0038
10	6	8	1.3345	1.1371	1.0843	1.0661	1.0506	1.0278	1.0172	1.0114	1.0129	1.0104
			.1262	.0417	.0280	.0281	.0230	.0107	.0053	.0026	.0058	.0044
10	7	8	1.7543	1.5232	1.3297	1.2328	1.1766	1.1187	1.0882	1.0697	1.0559	1.0473
			.1887	.2187	.1244	.0787	.0536	.0314	.0205	.0145	.0095	.0071
10	1	9	.2029	.2042	.3250	.4007	.4655	.5662	.6340	.6837	.7217	.7518
			.0100	-.0923	-.0573	-.0508	-.0422	-.0263	-.0191	-.0144	-.0112	-.0088
10	2	9	.4296	.3707	.5104	.5822	.6408	.7225	.7732	.8071	.8336	.8521
			.0224	-.1417	-.0786	-.0636	-.0484	-.0283	-.0189	-.0147	-.0105	-.0093
10	3	9	.6863	.5414	.6735	.7258	.7701	.8265	.8609	.8856	.9005	.9163
			.0380	-.1694	-.0850	-.0678	-.0501	-.0306	-.0208	-.0135	-.0115	-.0057
10	4	9	.9821	.7353	.8221	.8711	.8950	.9340	.9506	.9599	.9641	.9653
			.0582	-.1728	-.0927	-.0524	-.0366	-.0100	-.0024	.0003	-.0004	-.0031
10	5	9	1.3318	.9614	1.0045	.9929	1.0071	.9917	.9931	.9960	1.0046	1.0056
			.0864	-.1525	-.0639	-.0539	-.0277	-.0303	-.0226	-.0161	-.0051	-.0024
10	6	9	1.7573	1.2456	1.1838	1.1599	1.1282	1.1068	1.0857	1.0687	1.0494	1.0427
			.1261	-.0923	-.0436	-.0105	-.0078	.0102	.0109	.0078	-.0019	-.0018
10	7	9	2.3021	1.6195	1.4180	1.3276	1.2671	1.1833	1.1399	1.1128	1.0977	1.0839
			.1885	.0260	.0174	.0261	.0256	.0111	.0059	.0032	.0052	.0038
10	8	9	3.0562	2.1788	1.7443	1.5386	1.4162	1.2868	1.2173	1.1753	1.1463	1.1258
			.2998	.2743	.1426	.0894	.0584	.0328	.0207	.0149	.0109	.0086
10	1	10	.3029	.2606	.3945	.4679	.5301	.6250	.6864	.7302	.7639	.7901
			.0100	-.1300	-.0750	-.0641	-.0518	-.0312	-.0221	-.0169	-.0129	-.0100
10	2	10	.6407	.4659	.6156	.6763	.7257	.7952	.8349	.8620	.8813	.8964
			.0223	-.2091	-.1080	-.0847	-.0642	-.0362	-.0244	-.0175	-.0132	-.0099
10	3	10	1.0224	.6714	.8030	.8417	.8727	.9137	.9338	.9459	.9556	.9610
			.0380	-.2650	-.1287	-.0933	-.0673	-.0355	-.0227	-.0162	-.0110	-.0091
10	4	10	1.4614	.8942	.9882	.9895	1.0013	1.0059	1.0079	1.0096	1.0098	1.0102
			.0585	-.3020	-.1353	-.0986	-.0664	-.0395	-.0260	-.0173	-.0124	-.0086
10	5	10	1.9769	1.1461	1.1708	1.1460	1.1260	1.1102	1.0918	1.0759	1.0610	1.0545
			.0858	-.3212	-.1415	-.0873	-.0598	-.0216	-.0101	-.0072	-.0091	-.0060
10	6	10	2.6035	1.4625	1.3813	1.3008	1.2567	1.1822	1.1451	1.1236	1.1122	1.0939
			.1267	-.2999	-.1262	-.0782	-.0452	-.0321	-.0208	-.0116	-.0020	-.0050
10	7	10	3.3974	1.8518	1.6239	1.4844	1.3978	1.2921	1.2299	1.1873	1.1539	1.1393
			.1882	-.2472	-.0964	-.0489	-.0250	-.0059	-.0002	-.0001	-.0039	.0028
10	8	10	4.4853	2.4112	1.9359	1.7083	1.5621	1.3927	1.3014	1.2446	1.2072	1.1747
			.3000	-.0975	-.0314	.0009	.0060	.0040	.0031	.0027	.0039	-.0006
10	9	10	6.1997	3.3307	2.4158	2.0096	1.7768	1.5275	1.3977	1.3183	1.2649	1.2279
			.5497	.2661	.1296	.0840	.0564	.0303	.0187	.0124	.0086	.0073

TABLE 3

EXPECTED CROSS-PRODUCTS AND COVARIANCES OF ORDER STATISTICS FROM WEIBULL

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
11	1	2	.026	.069	.123	.178	.231	.324	.400	.462	.513	.556
			.008	.012	.013	.013	.012	.010	.008	.007	.006	.005
11	1	3	.036	.078	.141	.203	.260	.358	.436	.498	.548	.590
			.008	-.000	.000	.000	.001	.001	.001	.001	.001	.000
11	2	3	.076	.163	.241	.311	.371	.467	.538	.594	.638	.673
			.018	.027	.025	.022	.019	.015	.011	.009	.007	.006
11	1	4	.047	.089	.160	.225	.286	.387	.465	.527	.576	.616
			.008	-.011	-.008	-.008	-.007	-.005	-.003	-.002	-.002	-.001
11	2	4	.100	.177	.264	.341	.404	.502	.573	.627	.669	.702
			.018	.004	.004	.006	.006	.005	.004	.003	.003	.002
11	3	4	.160	.287	.373	.442	.499	.585	.646	.692	.727	.755
			.031	.047	.039	.032	.026	.018	.013	.010	.008	.006
11	1	5	.060	.100	.180	.248	.311	.414	.492	.552	.600	.639
			.008	-.021	-.016	-.016	-.014	-.009	-.007	-.005	-.004	-.003
11	2	5	.127	.195	.292	.370	.436	.534	.604	.656	.695	.727
			.018	-.015	-.010	-.007	-.004	-.002	-.001	-.000	-.000	-.000
11	3	5	.203	.305	.398	.477	.535	.620	.679	.722	.755	.782
			.031	.013	.010	.013	.012	.009	.006	.005	.004	.003
11	4	5	.290	.444	.521	.579	.625	.694	.741	.776	.803	.824
			.046	.073	.055	.041	.032	.021	.015	.011	.009	.007
11	1	6	.075	.113	.200	.271	.335	.439	.516	.576	.622	.660
			.008	-.032	-.023	-.023	-.020	-.013	-.010	-.007	-.006	-.004
11	2	6	.159	.215	.321	.400	.466	.564	.632	.682	.720	.750
			.018	-.035	-.023	-.020	-.015	-.009	-.006	-.004	-.002	-.002
11	3	6	.253	.329	.433	.511	.571	.654	.711	.751	.782	.806
			.031	-.017	-.009	-.004	-.000	.000	.001	.001	.001	.001
11	4	6	.361	.466	.549	.619	.665	.731	.775	.807	.831	.849
			.046	.024	.017	.021	.017	.012	.009	.007	.005	.004
11	5	6	.486	.642	.691	.726	.756	.801	.831	.854	.872	.885
			.067	.104	.073	.050	.038	.024	.016	.012	.009	.007
11	1	7	.093	.127	.223	.295	.360	.465	.541	.599	.644	.680
			.008	-.044	-.030	-.029	-.025	-.016	-.012	-.009	-.006	-.005
11	2	7	.197	.238	.354	.434	.500	.596	.662	.709	.744	.773
			.018	-.057	-.035	-.029	-.022	-.014	-.009	-.006	-.005	-.003
11	3	7	.313	.359	.467	.546	.606	.687	.740	.779	.806	.830
			.031	-.049	-.032	-.022	-.015	-.008	-.006	-.003	-.002	-.000
11	4	7	.446	.501	.595	.658	.708	.769	.807	.835	.856	.868
			.046	-.018	-.005	-.001	.004	.004	.002	.001	.001	-.003
11	5	7	.600	.671	.722	.773	.798	.838	.866	.885	.899	.915
			.067	.038	.023	.028	.019	.011	.009	.007	.005	.008
11	6	7	.784	.895	.890	.891	.898	.912	.924	.933	.941	.945
			.094	.143	.093	.062	.046	.028	.019	.015	.011	.007
11	1	8	.116	.145	.247	.321	.387	.492	.566	.622	.665	.700
			.008	-.056	-.038	-.036	-.031	-.020	-.015	-.012	-.009	-.007
11	2	8	.245	.267	.388	.469	.533	.628	.690	.736	.769	.794
			.018	-.079	-.050	-.042	-.033	-.020	-.014	-.009	-.006	-.006
11	3	8	.389	.395	.525	.591	.651	.726	.777	.807	.833	.846
			.031	-.083	-.038	-.035	-.022	-.013	-.005	-.007	-.004	-.009
11	4	8	.553	.542	.634	.703	.737	.794	.835	.867	.884	.914
			.046	-.066	-.043	-.023	-.025	-.018	-.010	-.001	-.000	.015

TABLE 3

N	I	J	VALUES OF M 1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
11	5	8	.743	.716	.776	.826	.867	.900	.918	.925	.933	.925
			.066	-.025	-.011	.006	.023	.022	.019	.010	.008	-.008
11	6	8	.968	.936	.934	.940	.937	.943	.947	.954	.960	.969
			.094	.052	.034	.028	.013	.004	-.001	-.002	-.001	.002
11	7	8	1.246	1.228	1.129	1.081	1.056	1.031	1.020	1.013	1.009	1.007
			.134	.189	.112	.074	.053	.032	.022	.016	.012	.010
11	1	9	.146	.166	.277	.353	.419	.523	.595	.648	.689	.722
			.008	-.071	-.046	-.042	-.035	-.022	-.016	-.012	-.009	-.007
11	2	9	.308	.301	.437	.512	.576	.666	.724	.763	.794	.820
			.018	-.108	-.060	-.052	-.039	-.024	-.015	-.013	-.009	-.005
11	3	9	.490	.443	.562	.640	.688	.762	.804	.848	.863	.885
			.031	-.121	-.076	-.051	-.043	-.025	-.019	-.001	-.004	.001
11	4	9	.695	.598	.706	.762	.820	.870	.895	.897	.919	.907
			.046	-.120	-.061	-.040	-.009	.005	.007	-.007	.001	-.020
11	5	9	.933	.779	.863	.859	.871	.884	.901	.934	.938	.967
			.067	-.096	-.029	-.047	-.045	-.050	-.044	-.018	-.020	.003
11	6	9	1.214	1.006	.977	1.033	1.027	1.041	1.041	1.032	1.019	1.008
			.094	-.035	-.040	.025	.023	.042	.043	.035	.023	.011
11	7	9	1.558	1.281	1.195	1.140	1.115	1.065	1.045	1.034	1.038	1.032
			.135	.055	.043	.027	.026	.002	-.003	-.004	.005	.003
11	8	9	2.000	1.684	1.435	1.311	1.237	1.164	1.124	1.099	1.079	1.067
			.197	.246	.136	.086	.056	.034	.023	.016	.009	.006
11	1	10	.192	.195	.316	.392	.457	.559	.628	.678	.716	.747
			.008	-.091	-.056	-.050	-.042	-.026	-.019	-.014	-.011	-.008
11	2	10	.404	.352	.492	.567	.626	.711	.764	.802	.828	.846
			.018	-.142	-.081	-.064	-.051	-.029	-.020	-.012	-.010	-.009
11	3	10	.641	.507	.648	.704	.756	.819	.857	.869	.894	.906
			.031	-.176	-.087	-.070	-.047	-.026	-.014	-.021	-.010	-.009
11	4	10	.909	.677	.798	.825	.852	.885	.908	.945	.936	.959
			.046	-.191	-.086	-.074	-.059	-.043	-.032	-.004	-.019	-.001
11	5	10	1.217	.878	.910	.983	.987	1.027	1.029	1.009	1.020	1.002
			.066	-.180	-.118	-.032	-.022	.024	.028	.009	.021	.003
11	6	10	1.583	1.101	1.137	1.058	1.077	1.007	.999	1.010	1.018	1.022
			.095	-.158	-.036	-.071	-.026	-.065	-.056	-.035	-.020	-.010
11	7	10	2.026	1.397	1.276	1.255	1.187	1.178	1.144	1.110	1.074	1.063
			.134	-.084	-.050	.007	-.010	.036	.034	.020	-.001	-.002
11	8	10	2.594	1.779	1.522	1.402	1.333	1.218	1.165	1.135	1.121	1.103
			.197	.041	.025	.029	.034	.005	-.000	-.000	.006	.004
11	9	10	3.378	2.352	1.849	1.612	1.471	1.326	1.247	1.199	1.166	1.143
			.308	.301	.154	.095	.060	.035	.022	.016	.012	.009
11	1	11	.283	.248	.381	.455	.518	.615	.678	.723	.757	.784
			.008	-.126	-.073	-.063	-.051	-.030	-.021	-.016	-.012	-.009
11	2	11	.595	.440	.593	.656	.708	.781	.823	.851	.872	.889
			.018	-.204	-.106	-.084	-.064	-.036	-.024	-.018	-.013	-.009
11	3	11	.943	.628	.769	.813	.847	.894	.917	.937	.943	.952
			.031	-.262	-.128	-.095	-.070	-.038	-.025	-.013	-.013	-.009
11	4	11	1.336	.828	.933	.956	.972	.992	.999	.993	1.005	1.001
			.046	-.303	-.144	-.097	-.067	-.031	-.018	-.019	-.005	-.007
11	5	11	1.789	1.048	1.118	1.081	1.083	1.056	1.047	1.050	1.036	1.037
			.067	-.331	-.134	-.107	-.066	-.050	-.034	-.017	-.020	-.011

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
11	6	11	2.317	1.298	1.275	1.243	1.197	1.181	1.148	1.116	1.093	1.083
			.093	-.343	-.154	-.079	-.060	-.001	.006	.000	-.004	-.001
11	7	11	2.964	1.632	1.493	1.379	1.326	1.212	1.167	1.149	1.139	1.114
			.136	-.300	-.124	-.080	-.038	-.047	-.033	-.013	.001	-.005
11	8	11	3.779	2.011	1.730	1.563	1.459	1.344	1.269	1.214	1.171	1.160
			.196	-.253	-.093	-.044	-.021	.006	.009	.002	-.006	.006
11	9	11	4.898	2.590	2.039	1.783	1.617	1.427	1.326	1.265	1.227	1.187
			.309	-.083	-.026	.007	.008	.003	.001	.002	.006	-.002
11	10	11	6.658	3.522	2.521	2.079	1.829	1.561	1.422	1.337	1.280	1.242
			.558	.289	.139	.089	.059	.032	.020	.013	.008	.008
12	1	2	.021	.061	.112	.166	.217	.310	.386	.449	.500	.544
			.007	.010	.012	.012	.012	.010	.008	.007	.006	.005
12	1	3	.030	.069	.129	.188	.245	.342	.420	.483	.534	.577
			.007	-.000	.000	.000	.001	.001	.001	.001	.001	.001
12	2	3	.063	.144	.220	.289	.349	.445	.519	.576	.621	.657
			.015	.024	.023	.021	.018	.014	.011	.009	.007	.006
12	1	4	.039	.079	.146	.209	.269	.369	.448	.511	.561	.602
			.007	-.009	-.007	-.007	-.006	-.004	-.003	-.002	-.001	-.001
12	2	4	.082	.157	.241	.316	.379	.478	.551	.607	.650	.685
			.015	.004	.005	.006	.006	.005	.004	.003	.003	.002
12	3	4	.131	.252	.338	.409	.467	.556	.621	.669	.707	.737
			.025	.042	.036	.030	.025	.017	.013	.010	.008	.006
12	1	5	.049	.088	.163	.229	.291	.394	.473	.534	.584	.624
			.007	-.018	-.014	-.014	-.012	-.009	-.006	-.005	-.004	-.003
12	2	5	.104	.171	.264	.342	.408	.508	.580	.634	.676	.709
			.015	-.012	-.008	-.005	-.003	-.001	-.000	.000	-.000	.000
12	3	5	.165	.267	.360	.440	.500	.589	.652	.698	.734	.762
			.025	.013	.011	.013	.011	.008	.006	.005	.004	.003
12	4	5	.234	.386	.469	.532	.583	.658	.711	.749	.779	.802
			.038	.065	.050	.038	.030	.020	.015	.011	.009	.007
12	1	6	.061	.099	.181	.250	.313	.417	.496	.557	.605	.644
			.007	-.027	-.021	-.020	-.018	-.012	-.009	-.007	-.005	-.004
12	2	6	.129	.188	.291	.368	.436	.535	.605	.658	.700	.731
			.015	-.030	-.019	-.018	-.013	-.008	-.006	-.004	-.002	-.001
12	3	6	.204	.288	.388	.471	.533	.621	.683	.726	.757	.784
			.025	-.012	-.008	-.001	.000	.002	.002	.002	.000	.000
12	4	6	.289	.404	.493	.568	.618	.692	.741	.777	.804	.825
			.038	.024	.017	.020	.016	.012	.008	.005	.005	.003
12	5	6	.387	.554	.618	.663	.701	.756	.795	.823	.844	.861
			.053	.092	.067	.047	.036	.023	.016	.012	.009	.007
12	1	7	.075	.111	.200	.270	.335	.441	.517	.576	.623	.661
			.007	-.037	-.026	-.027	-.023	-.015	-.012	-.010	-.007	-.006
12	2	7	.158	.209	.314	.399	.464	.564	.635	.685	.720	.751
			.015	-.044	-.034	-.024	-.020	-.013	-.005	-.003	-.005	-.003
12	3	7	.250	.309	.426	.497	.562	.649	.705	.748	.783	.804
			.025	-.041	-.019	-.020	-.013	-.008	-.007	-.004	.000	-.001
12	4	7	.354	.433	.530	.604	.657	.726	.773	.805	.828	.849
			.038	-.009	-.004	.004	.006	.004	.005	.004	.002	.003
12	5	7	.472	.574	.641	.705	.739	.792	.827	.852	.871	.885
			.053	.036	.023	.029	.020	.014	.011	.009	.008	.006

N	I	J	VALUES OF M 1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
12	6	7	.609	.762	.789	.805	.825	.856	.876	.892	.905	.915
			.074	.126	.086	.056	.042	.026	.016	.011	.009	.007
12	1	8	.092	.125	.219	.295	.359	.464	.543	.600	.646	.682
			.007	-.046	-.034	-.030	-.027	-.018	-.011	-.008	-.006	-.005
12	2	8	.193	.224	.355	.424	.494	.593	.655	.704	.746	.772
			.015	-.070	-.034	-.039	-.028	-.016	-.015	-.011	-.004	-.005
12	3	8	.305	.346	.451	.545	.603	.683	.742	.780	.803	.829
			.026	-.060	-.047	-.022	-.017	-.011	-.003	-.001	-.006	-.001
12	4	8	.430	.458	.558	.629	.683	.754	.794	.828	.850	.870
			.037	-.055	-.039	-.027	-.018	-.008	-.009	-.004	-.004	-.001
12	5	8	.574	.617	.705	.745	.790	.834	.858	.876	.894	.889
			.053	-.006	.013	.005	.016	.012	.004	.000	.001	-.015
12	6	8	.740	.790	.808	.854	.861	.885	.909	.922	.931	.956
			.074	.052	.022	.034	.016	.008	.009	.006	.004	.021
12	7	8	.937	1.026	.989	.969	.964	.963	.966	.969	.972	.967
			.101	.166	.106	.069	.051	.032	.023	.018	.015	.005
12	1	9	.113	.140	.245	.316	.383	.489	.562	.617	.662	.697
			.007	-.059	-.038	-.038	-.033	-.021	-.017	-.014	-.011	-.008
12	2	9	.237	.262	.372	.464	.527	.622	.689	.734	.764	.794
			.015	-.079	-.063	-.042	-.036	-.023	-.012	-.009	-.010	-.003
12	3	9	.373	.366	.506	.570	.630	.714	.761	.800	.832	.837
			.025	-.103	-.050	-.049	-.037	-.020	-.018	-.011	-.003	-.016
12	4	9	.528	.509	.655	.686	.754	.802	.848	.844	.875	.880
			.039	-.086	-.012	-.031	-.001	-.004	.008	-.020	-.006	-.014
12	5	9	.701	.657	.691	.792	.777	.823	.859	.920	.925	.992
			.053	-.064	-.081	-.015	-.056	-.046	-.033	.011	.004	.063
12	6	9	.903	.832	.883	.910	.984	.996	1.004	.965	.967	.921
			.073	-.022	.006	.015	.075	.068	.063	.015	.011	-.039
12	7	9	1.142	1.068	1.034	1.007	.971	.964	.955	.974	.975	.994
			.102	.072	.048	.025	-.011	-.020	-.029	-.013	-.011	.005
12	8	9	1.437	1.367	1.223	1.155	1.121	1.080	1.060	1.044	1.035	1.032
			.141	.212	.121	.080	.061	.039	.029	.018	.013	.013
12	1	10	.141	.161	.270	.348	.413	.518	.591	.646	.687	.720
			.007	-.071	-.049	-.042	-.036	-.023	-.015	-.011	-.009	-.007
12	2	10	.294	.283	.431	.500	.566	.661	.718	.758	.794	.809
			.015	-.115	-.057	-.056	-.042	-.023	-.017	-.014	-.006	-.013
12	3	10	.466	.420	.556	.623	.682	.751	.799	.828	.853	.901
			.026	-.129	-.069	-.057	-.039	-.028	-.017	-.015	-.010	.021
12	4	10	.654	.568	.629	.743	.755	.827	.857	.935	.925	.905
			.036	-.128	-.120	-.044	-.061	-.027	-.022	.037	.013	-.016
12	5	10	.873	.703	.840	.841	.941	.976	.995	.881	.944	.922
			.055	-.140	-.027	-.046	.039	.054	.060	-.063	-.007	-.035
12	6	10	1.121	.913	.987	.913	.862	.852	.860	.971	.925	.989
			.073	-.085	.000	-.070	-.119	-.131	-.124	-.016	-.063	-.000
12	7	10	1.416	1.140	1.019	1.152	1.128	1.154	1.148	1.090	1.091	1.060
			.102	-.023	-.088	.073	.066	.110	.116	.064	.060	.041
12	8	10	1.777	1.413	1.314	1.191	1.174	1.083	1.054	1.044	1.048	1.038
			.142	.063	.074	.010	.030	-.020	-.026	-.021	-.008	-.011
12	9	10	2.240	1.837	1.530	1.384	1.289	1.205	1.155	1.127	1.099	1.084
			.204	.274	.146	.094	.056	.038	.026	.020	.009	.006

VALUES OF M

N	I	J	1.0	1.5	2.0	2.5	3.0	4.0	5.0	6.0	7.0	8.0
12	1	11	.182	.187	.309	.384	.449	.552	.622	.672	.712	.743
			.007	-.090	-.056	-.051	-.043	-.026	-.019	-.015	-.011	-.009
12	2	11	.382	.337	.475	.554	.613	.709	.754	.794	.820	.847
			.015	-.141	-.084	-.066	-.053	-.032	-.022	-.014	-.011	-.003
12	3	11	.602	.481	.619	.688	.738	.808	.847	.880	.892	.877
			.025	-.177	-.098	-.071	-.052	-.025	-.015	-.002	-.006	-.031
12	4	11	.849	.625	.781	.798	.849	.888	.923	.871	.929	.976
			.038	-.208	-.077	-.079	-.044	-.026	-.006	-.068	-.018	.022
12	5	11	1.126	.812	.909	.913	.907	.916	.920	1.053	.948	.960
			.052	-.198	-.084	-.074	-.080	-.070	-.066	.064	-.040	-.029
12	6	11	1.448	1.014	.940	1.114	1.082	1.157	1.159	1.019	1.126	1.084
			.074	-.181	-.189	.018	.006	.104	.118	-.013	.098	.060
12	7	11	1.826	1.222	1.218	1.060	1.145	.958	.944	1.014	.977	.996
			.102	-.172	.049	-.133	-.017	-.158	-.145	-.059	-.083	-.056
12	8	11	2.284	1.546	1.331	1.364	1.223	1.278	1.234	1.153	1.115	1.086
			.130	-.070	-.087	.048	-.030	.097	.093	.037	.017	.001
12	9	11	2.875	1.930	1.621	1.465	1.401	1.234	1.179	1.156	1.144	1.125
			.205	.058	.037	.027	.051	-.014	-.013	-.002	.010	.011
12	10	11	3.687	2.514	1.946	1.680	1.520	1.363	1.275	1.220	1.184	1.159
			.315	.225	.164	.100	.061	.038	.026	.017	.012	.010
12	1	12	.266	.237	.369	.444	.508	.606	.670	.716	.751	.778
			.007	-.122	-.072	-.062	-.050	-.030	-.021	-.016	-.012	-.009
12	2	12	.556	.417	.573	.638	.693	.769	.813	.842	.864	.880
			.015	-.200	-.104	-.084	-.063	-.035	-.024	-.018	-.013	-.011
12	3	12	.876	.591	.741	.787	.824	.874	.904	.918	.935	.950
			.025	-.259	-.127	-.096	-.072	-.040	-.026	-.021	-.012	-.002
12	4	12	1.233	.774	.896	.922	.944	.959	.978	1.005	.980	.983
			.037	-.303	-.143	-.100	-.070	-.036	-.024	.003	-.010	-.015
12	5	12	1.638	.974	1.037	1.054	1.053	1.050	1.058	.999	1.059	1.041
			.054	-.331	-.166	-.096	-.067	-.025	-.006	-.053	.014	.002
12	6	12	2.101	1.184	1.256	1.148	1.159	1.082	1.058	1.106	1.023	1.041
			.074	-.361	-.111	-.127	-.061	-.075	-.064	.006	-.061	-.031
12	7	12	2.643	1.440	1.348	1.243	1.248	1.270	1.216	1.135	1.138	1.111
			.099	-.361	-.186	-.056	-.071	.043	.040	-.007	.018	.006
12	8	12	3.310	1.799	1.601	1.442	1.396	1.314	1.164	1.175	1.153	1.134
			.144	-.289	-.116	-.089	-.025	-.083	-.065	-.012	-.005	-.003
12	9	12	4.142	2.140	1.838	1.631	1.511	1.402	1.312	1.236	1.184	1.177
			.201	-.269	-.088	-.042	-.020	.020	.025	.003	-.011	.009
12	10	12	5.291	2.762	2.133	1.853	1.664	1.454	1.346	1.284	1.246	1.196
			.317	-.065	-.023	.014	.009	-.001	-.001	.003	.009	-.008
12	11	12	7.091	3.698	2.617	2.141	1.875	1.592	1.445	1.354	1.293	1.255
			.565	.211	.148	.092	.063	.034	.021	.013	.008	.009

TABLE 3